## DEPARTMENT OF THE NAVY FY 1999 AMENDED BUDGET ESTIMATES



### JUSTIFICATION OF ESTIMATES FEBRUARY 1998

WEAPONS PROCUREMENT, NAVY BUDGET ACTIVITY 2

UNCLASSIFIED
Department of the Navy
FY 1999 Procurement Program

FY 1999 Procurement Program Exhibit P-1

		(DOLLARS) FY 1999 UNIT COST	TOA, \$ IN MILLIONS							
LINE NO ITEM NOMENCLATURE	IDENT CODE		FY 1997 QUANTITY COST					1999		
BUDGET ACTIVITY 02: Other Missiles										
Strategic Missiles										
4 2101 Tomahawk	А		155	102.2	65	50.0		129.8		
5 2307 ESSM	В	1,274,000		-		10.3	28	35.7		
Tactical Missiles										
6 2206 AMRAAM	A	544,704	100	50.3	120	55.3	115	62.6		
7 2230 JSOW	В	381,729	100	81.0	135	62.0	328	125.2		
8 2234 Standard Missile	A	1,880,850	127	209.4	114	176.4	120	225.7		
9 2242 RAM	A	447,660	135	46.9	100	41.0	100	44.8		
10 2254 Hellfire	A			-		19.5		-		
11 2260 Penguin	A			6.9		7.3		-		
12 2280 Aerial Targets	A			73.9		64.0		75.5		
13 2285 Drones and Decoys	A			17.1		.3		.3		
14 2290 Other Missile Support	A			15.5		17.8		15.2		
Modification Of Missiles										
15 2301 Tomahawk Mods	A			8.1		_		-		
16 2304 Sparrow Mods	A			2.5		-		-		
17 2315 Sidewinder Mods	А			2.1		.3		-		
18 2326 Harpoon Mods	А			40.3		30.0		39.5		
19 2356 Standard Missiles Mods	А			16.9		49.7		45.3		
Support Equipment And Facilities										
20 2420 Weapons Industrial Facilities	A			33.4		29.8		27.1		

UNCLASSIFIED

Exhibit P-1

#### Department of the Navy

#### FY 1999 Procurement Program

APPROPRIATION: 1507N Weapons Procurement, Navy DATE: 01/23/98 TOA, \$ IN MILLIONS LINE NO ITEM NOMENCLATURE 21 2430 Fleet Satellite Comm (MYP) (Space) A 110.1 - IJ Ordnance Support Equipment 14.1 5.1 6.2 ------ 830.6 618.9 832.9 6.2 U 22 2500 Ordnance Support Equipment A 830.6 TOTAL Other Missiles

#### Weapons Procurement, Navy Program and Financing (in Thousands of dollars)

	action	s programed)	PROCUREMENT	Obligations				
Identification code 17-1507-0-1-051	1997 actual	1998 est.	1999 est.	1997 actual	1998 est.	1999 est.		
Program by activities:								
Direct program:  00.0101 Ballistic missiles  00.0201 Other missiles  00.0301 Torpedoes and related equipment  00.0401 Other weapons  00.0601 Spares and repair parts	314,815 830,648 108,108 36,636 41,809	269,834 618,864 92,621 85,022 21,422	323,650 832,908 97,837 27,232 45,918	366,815 926,354 100,236 34,966 47,140	600,517 111,289 73,804 31,335	292,984 740,014 105,517 39,515 46,165		
00.9101 Total direct program	1,332,016	1,087,763	1,327,545	1,475,511				
01.0101 Reimbursable program	21,000	74,800	74,800	243	95,800	74,800		
10.0001 Total				1,475,754				
Financing: Offsetting collections from: 11.0001 Federal funds(-) 17.0001 Recovery of prior year obligations Unobligated balance available, start of year:	-21,000	-74,800	-74,800	-15,784 -12,077	-74,800	-74,800		
21.4002 For completion of prior year budget plans	-16,000 -21,378	-6,726 6,726		-448,823 -16,000	-311,568 -6,726 6,726	-274,920		
24.4002 For completion of prior year budget plans 24.4003 Available to finance subsequent year budget 25.0001 Unobligated balance expiring	21.378			311,568 6,726 21,378	274,920	378,270		
39.0001 Budget authority	1,322,742			1,322,742		1,327,545		
Budget authority: 40.0001 Appropriation	1,364,231 -41,489	-21,230 6,800	, ,	1,364,231 -41,489	-21,230 6,800			
43.0001 Appropriation (adjusted)		1,087,763		1,322,742				

#### Weapons Procurement, Navy Program and Financing (in Thousands of dollars)

		(amounts for F s programed)	Obligations				
Identification code 17-1507-0-1-051	1997 actual	1998 est.	1999 est.	1997 actual	1998 est.	1999 est.	
Relation of obligations to outlays: 71.0001 Obligations incurred 72.1001 Orders on hand, SOY 72.4001 Obligated balance, start of year 74.1001 Orders on hand, EOY 74.4001 Obligated balance, end of year 77.0001 Adjustments in expired accounts (net) 78.0001 Adjustments in unexpired accounts				1,459,970 -37,434 3,286,784 34,608 -2,765,572 15,891 -12,077	1,124,410 -34,608 2,765,572 34,608 -2,270,295	1,224,195 -34,608 2,270,295 34,608 -2,109,757	
90.0001 Outlays (net)				1,982,170	1,619,687	1,384,733	

#### Weapons Procurement, Navy Object Classification (in Thousands of dollars)

Identification code 17-1507-0-1-051	1997 actual	1998 est.	1999 est.
Direct obligations:			
122.001 Transportation of things	2,566	2,008	2,028
125.101 Advisory and assistance services	23,256	24,591	24,701
Purchases goods/services (inter/intra) Fed accounts			
125.303 Purchases from revolving funds	200,392	203,192	179,946
126.001 Supplies and materials	78,820	70,461	82,862
131.001 Equipment	1,170,477	803,158	934,658
199.001 Total Direct obligations	1,475,511	1,103,410	1,224,195
Reimbursable obligations:			
226.001 Supplies and materials	243	95,800	21,900
231.001 Equipment			52,900
299.001 Total Reimbursable obligations	243	95,800	74,800
		,	,
999.901 Total obligations	1,475,754	1,199,210	1,298,995

## Comparison of FY 1998 Program Requirements as Reflected in the FY 1998 Budget with FY 1998 Program Requirements as Shown in FY 1999 Budget (In Thousands of Dollars)

	FY 1998	FY 1998	
	Total Program	Program	Increase (+)
	Requirements	Requirements	or
	Per FY 1998 Budget	Per FY 1999 Budget	<u>Decrease (-)</u>
Ballistic Missiles	341,412	269,834	-71,578
Dailibele Missiles	341,412	200,034	71,570
Other Missiles	612,993	618,864	+5,871
Torpedoes and Related Equipmen	nt 95,715	92,621	-3,094
Other Weapons	59,230	85,022	+25,792
Other Weapons	37,230	03,022	123,172
Spares and Repair Parts	26,943	21,422	-5,521
	1 126 002	1 005 560	40 500
Subtotal Direct Program	1,136,293	1,087,763	-48,530
Reimbursable	74,800	74,800	_
	,	,	
Total Fiscal Year	1,211,093	1,162,563	-48,530

#### Explanation of Changes in FY 1998 Program Requirements

#### 1. <u>Ballistic Missiles (-\$71.6 million)</u>

Decrease reflects Congressional undistributed and inflation reductions (-\$6.6 million) and a program reduction of 2 Trident II missiles (-\$65.0 million) to slow the production rate of Trident II missiles specifically earmarked for the D5 Backfit submarines.

#### 2. Other Missiles (+\$5.9 million)

Changes include Congressional adjustments to JSOW (+\$5.0 million), Standard Missile (-\$15.4 million), Hellfire (+\$20.0 million), Penguin (+\$7.5 million), Aerial Targets (-\$7.0 million), ESSM (-\$5.0 million), Standard Missile Modifications (+\$15.3 million), and Weapons Industrial Facility (-\$4.5 million). Reprogrammings requiring Congressional approval include the SLAM-ER program (+\$9.0 million) and RAM (-\$2.0 million) are also part of the change. Adjustments also include Congressional undistributed general and inflation reductions (-\$17.0 million).

#### 3. <u>Torpedoes and Related Equipment (-\$3.1 million)</u>

Changes include Congressional undistributed general and inflation reductions (-\$2.9 million) and a reprogramming requiring Congressional approval to the First Destination Transportation program (-\$0.2 million).

#### 4. Other Weapons (+\$25.8 million)

Changes include Congressional adjustments for the Close-In-Weapons-System (+\$15.0 million), 5/54 Gun Mount Modifications (+\$10.0 million), and Pioneer (+\$3.0 million) and Congressional undistributed reductions (-\$2.2 million).

#### 6. Spares & Repair Parts (\$-5.5 million)

Changes include adjustments for Congressional reductions (-\$5.0 million) and undistributed Congressional reductions (-\$.5 million).

## Comparison of FY 1998 Financing as Reflected in the FY 1998 Budget with FY 1998 Financing as Shown in FY 1998 Budget (In Thousands of Dollars)

	FY 1998 Financing Per FY 1998 Budget	FY 1998 Financing Per FY 1999 Budget	Increase (+) Decrease (-)
Program Requirements (Total) Program Requirements (Direct) Program Requirements (Reimb)	(1,136,293) (74,800)	(1,087,763) (74,800)	(-48,530)
Less: Anticipated Reimbursements	74,800	74,800	-
Add:     Unob bal avail, start of year to finance new budget plans     Unob bal transferred to other	accts	-6,726 6,726	-6,726 6,726
Appropriation Adjusted	1,136,293	1,087,763	-48,530
Budget Authority: FY 1998 DoD Appropriations Act Reduct Pursuant to P. L. 105-5 Transferred from other account	56	1,102,193 -21,230 6,800	-34,100 -21,230 +6,800
Appropriation (Adjusted)	1,136,293	1,087,763	-48,530

#### Explanation of Changes in Financing

The \$48.5 million change in program financing is the net result of Congressional specific (-\$34.1 million) and undistributed general reductions (-\$21.2 million); and Prior Approval Congressional reprogrammings associated with a more cost efficient procurement profile for the SLAM-ER program (+\$9.0 million), and funding from RAM (-\$2.0 million) and First Destination Transportation (-\$0.2 million) funding to fund emergent DOD requirements.

# Comparison of FY 1997 Program Requirements as Reflected in the FY 1998 Budget with FY 1997 Program Requirements as Shown in FY 1999 Budget (In Thousands of Dollars)

	FY 1997 Total Program Requirements <u>Per FY 1998 Budget</u>	FY 1997 Total Program Requirements <u>Per FY 1999 Budget</u>	Increase (+) or Decrease (-)
Ballistic Missiles	316,332	314,815	-1,517
Other Missiles	844,202	830,648	-13,554
Torpedoes and Related Equipment	120,594	108,108	-12,486
Other Weapons	30,815	36,636	+5,821
Spares and Repair Parts	46,490	41,809	-4,681
Subtotal Direct Program	1,358,433	1,332,016	-26,417
Reimbursable	74,800	21,000	-53,800
Total Fiscal Year	1,433,233	1,353,016	-80,217

#### Explanation of Changes in FY 1997 Program Requirements

#### 1. <u>Ballistic Missiles (-\$1.5 million)</u>

Change is a result of revised economic assumption reflected in the FY 1997 Supplemental Appropriation (-\$1.3 million) and minor below threshold reprogramming actions (-\$0.2 million).

#### 2. Other Missiles (-\$13.6 million)

Change reflects a reduction to AMRAAM (-\$4.2 million) to fund the AEGIS Baseline Consolidation effort; and a net increase to fund additional MA-31 Aerial Target procurement (\$1.5 million). Adjustments were also associated with revised economic assumptions reflected in the FY 1997 Supplemental Appropriation (-\$3.6 million), and minor below threshold reprogramming actions.

#### 3. Torpedoes and Related Equipment (-\$12.5 million)

Change reflects minor below threshold reprogrammings (-\$9.4 million), and reductions associated with the revised economic assumptions reflected in the FY 1997 Supplemental appropriation (-\$0.5 million). Reduction also include funding reprogrammed to support the AEGIS Baseline Consolidation effort (-\$2.5 million).

#### 4. Other Weapons (+\$5.8 million)

Change reflects minor below threshold reprogrammings (+\$6.0 million) and revised economic assumption reflected in the FY 1997 Supplemental Appropriation (-\$0.1 million).

#### 6. Spares & Repair Parts (-\$4.7 million)

Change reflects minor below threshold reprogrammings (-\$4.5 million) and revised economic assumptions reflected in the FY 1997 Supplemental Appropriation (-\$0.2 million).

## Comparison of FY 1997 Financing as Reflected in the FY 1998 Budget with FY 1997 Financing as Shown in FY 1999 Budget (In Thousands of Dollars)

	FY 1997 Financing Per FY 1998 Budget	FY 1997 Financing Per FY 1999 Budget	Increase (+) Decrease (-)
Program Requirements (Total) Program Requirements (Direct) Program Requirements (Reimb)	1,433,233 (1,358,433) (74,800)	1,353,016 (1,332,016) (21,000)	-80,217 (-26,417) (-53,800)
Less: Anticipated Reimbursements	-74,800	-21,000	-53,800
Add: Federal Funds (-): Available to finance new budget Reprogrammed from/to prior year		-21,000 -16,000	-21,000 -16,000
budget plan: Available to finance subsequent year budget: Unobligated balance expiring	_	-21,378 6,726 21,378	-21,378 +6,726 +21,378
Appropriation Adjusted	1,358,433	1,322,742	-35,691
Budget Authority: FY 1997 DoD Appropriations Act	1,389,913	1,364,231	-25,682
Reduction pursuant to P.L. 104-208, 8037 (h) Transferred from other accts	-3,682 -	- -	+3,682
Transferred to other accounts	-27,798	-41,489	-13,691
Appropriation (Adjusted)	1,358,433	1,322,742	-35,691

#### Explanation of Changes in Financing

Primary changes in program financing are a result of reductions associated with revised economic assumptions reflected in the FY 1997 Supplemental Appropriation (-\$5.7 million), transfers to other accounts (-\$13.7 million), and funding reprogrammed for AEGIS Baseline Consolidation efforts (-\$6.7 million).

#### **CLASSIFICATION:**

#### UNCLASSIFIED

	BUDGET ITEM JUSTIFICATION SHEET											DATE:	
				ı	P-40						Feb-98		
APPROPRIATION/BUDGET	P-1 ITEM NC	MENCLATUR	RE										
Weapons Procuremen	ıt, Navy							TOMAHAW	/K (J2EL)(F	PEO(CU))(B	LI: 210100)		
Program Element for Code I	3 Items:						Other Related Program Elements						
BA2/OTHER MISSILES													
	Prior	ID									То	Total	
	Years	Code	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	Complete	Program	
QUANTITY	3,974		107	155	65	114	141	132	113	223	N/A	5,024	
COST (\$M)	\$7,276.5		\$113.2	\$102.2	\$50.0	\$129.8	\$127.4	\$120.5	\$106.1	\$164.5	N/A	\$8,190.0	
Initial Spares (\$M)	\$297.1		\$6.6	\$4.8	\$1.4	\$3.2	\$0.6	\$0.5	\$0.4	\$0.6	N/A	\$315.1	
Total (\$M)	\$7,573.6		\$119.8	\$107.0	\$51.4	\$133.0	\$128.0	\$121.0	\$106.5	\$165.1	N/A	\$8,505.4	
Unit Cost (\$M)	1.906		1.119	0.690	0.791	N/A	N/A	N/A	N/A	N/A	N/A	1.693	

Tomahawk provides an attack capability against targets at sea (Antiship Tomahawk) and on land (Land Attack Tomahawk), and can be launched from both surface ships (RGM) and submarines (UGM). The Land attack version can be fitted with either conventional high explosives, nuclear warheads or submunition dispenser.

Tomahawk consists of four variants: (1) RGM/UGM-109A, Land Attack Nuclear; (2) RGM/UGM-109B, Antiship; (3) RGM/UGM-109C, Land Attack Conventional; (4) RGM/UGM-109D, Land Attack Submunition Dispenser.

The antiship version has a modified HARPOON missile guidance system. This system permits firing in the general direction of any enemy warship at low altitude to avoid detection by radar. At a programmed distance, the missile commences a search to seek out and acquire the target ship with active radar.

The land-attack version has inertial guidance updated by a Terrain Contour Matching (TERCOM) system. The inertial equipment is provided with the known location of the launch platform and target prior to launch. The system then controls the missile on a preprogrammed flight-path to the target. While the missile is flying over land, the TERCOM equipment compares taped digital map actual terrain references to the missile's position and corrects its course to the target. In the conventional land-attack missile, a Digital Scene Matching Area Correlator (DSMAC) compares stored photographic scenes with those observed through an optical lens, to achieve improved terminal accuracy.

The FY99 program will procure a total of 114 remanufactured missiles; 15 in the Block III configuration and 99 in the Block IV/1 configuration.

Characterstics and dimensions (approximate)

Weight (with booster and capsule) (UGM-109): 4,300 pounds Weight (with booster and canister) (RGM-109): 4,000 pounds

Length (with booster): 20.5 feet

Wing Span: 8.6 feet

DD Form 2454, JUN 86

Cruise Speed: High Subsonic

Contractor: Hughes Missiles Systems Company

P-1 SHOPPING LIST

ITEM NO 4 PAGE NO 1

CLASSIFICATION:

**UNCLASSIFIED** 

# WEAPONS PROCUREMENT, NAVY FY 1998/99 OSD/OMB BUDGET MISSILE COST ANALYSIS EXHIBIT P-5 (Dollars in Millions)

Missile Nomenclature & Popular Name: TOMAHAWK (J2EL)(PEO(CU)) (BLI: 210100)

Date:	Feb-98	

Cost Elements	Prior Years Total Cost	FY 1996 Quantity	Quantity Unit Cost	Total Cost	FY 1997 Quantity	Quantity Unit Cost	Total Cost	FY 1998 Quantity	Quantity Unit Cost	Total Cost	FY 1999 Quantity	Quantity Unit Cost	Total Cost
Missile Hardware													_
All-Up-Round	5,481,783	107	667	71,333	155	553	85,769	65	506	32,900	0	0	0
Total Hardware	5,481,783	107	667	71,333	155	553	85,769	65	506	32,900	0	0	0
Procurement Support													
Product Improvement	355,366			12,976			4,143			4,865			10,272
Systems Engineering Integration	264,271			3,982			3,154			3,725			4,319
Production Engineering	527,878			20,817			5,594			14,227			18,552
Total Procurement Support	1,147,515		_	37,775		_	12,891			22,817		_	33,143
Total Flyaway Cost	6,629,298			109,108			98,660			55,717			33,143
Remanufacture (Block III)	185,117	0	0	0	0	0	0	0	0	0	15	327	4,900
Remanufacture (Block IV/1)	0	0	0	0	0	0	0	0	0	0	99	862	85,900
Fleet Support													
Theater Mission Planning Center	243,598			2,750			2,745			2,800			3,501
Support Equipment	112,307			974			287			805			1,808
Training Equipment	78,019			0			0			0			0
Documentation	28,158			376			500			454			506
Total Fleet Support	462,082			4,100			3,532			4,059		_	5,815
Gross Weapons System	7,276,497			113,208			102,192			59,776			129,758
Less GFE Credit	0			(0)			(0)			(9,800)			(0)
Total Procurement Cost	7,276,497			113,208			102,192			49,976			129,758
Modifications	157,524			45,585			8,096			0			0
Initial Spares	297,089			6,565			4,814			1,408			3,171
Total Program Cost	7,731,110			165,358			115,102			51,384			132,929

P-1 SHOPPING LIST ITEM NO 4 PAGE NO 2

**CLASSIFICATION:** 

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#### WEAPONS PROCUREMENT, NAVY FY 1998/99 OSD/OMB BUDGET MISSILE COST ANALYSIS EXHIBIT P-5 (Dollars in Millions)

Missile Nomenclature & Popular Name TOMAHAWK (J2EL)(PEO(CU)) (BLI: 210100)

•	EV 2222		, ,, ,	F)/ 0004	0 "		EV 0000	0 "		EV 0000	0 "		То	
Cost Elements	FY 2000 Quantity	Quantity Unit Cost	Total Cost	FY 2001 Quantity	Quantity Unit Cost	Total Cost	FY 2002 Quantity	Quantity Unit Cost	Total Cost	FY 2003 Quantity	Quantity Unit Cost	Total Cost	Complete Costs	Total Cost
OGN Elemente	gaaning	OTHE COOL	Total Cool	Quantity	OTHE COOL	Total Cook	Quartity	OTHE COOL	Total Cook	Guartity	OTHE COOL	10101 0001	00010	<u>rotar Goot</u>
Missile Hardware														
All-Up-Round	0	0	0	0	0	0	0	0	0	0	0	0	0	5,671,785
Total Hardware	0	0	0	0	0	0	0	0	0	0	0	0	0	5,671,785
Procurement Support														
Product Improvement			9,335			8,178			6,917			6,670		418,722
Systems Engineering Integration			3,309			3,256			2,977			3,123		292,116
Production Engineering		_	15,888		_	12,752		_	12,327		_	11,703		639,738
Total Procurement Support			28,532			24,186			22,221			21,496		1,350,576
Total Flyaway Cost			28,532			24,186			22,221			21,496		7,022,361
Total Flyaway Cost			20,332			24,100			22,221			21,490		7,022,301
Remanufacture (Block III)	32	338	10,800	32	344	11,000	32	350	11,200	27	359	9,700		232,717
Remanufacture (Block IV/1)	109	745	81,600	100	734	73,720	81	740	60,500	196	603	118,281		420,001
Flack Command														
Fleet Support Theater Mission Planning Center			3,433			6,069			6,325			7,798		279,019
Support Equipment			2,316			4,297			4,545			5,607		132,946
Training Equipment			0			0			0			0		78,019
Documentation			692			1,223			1,274			1,571		34,754
Total Fleet Support		_	6,441		_	11,589		_	12,144		_	14,976		524,738
Gross Weapons System			127,373			120,495			106,065			164,453		8,199,817
Less GFE Credit			(0)			(0)			(0)			(0)		9,800
Total Procurement Cost			127,373			120,495			106,065			164,453		8,190,017
			,			-,			,			- ,		.,,-
Modifications			0			0			0			0		211,205
Initial Spares			634			502			357			557		315,097
Total Program Cost			128,007			120,997			106,422			165,010		8,716,319

P-1 SHOPPING LIST ITEM NO 4 PAGE NO 3

CLASSIFICATION:

**UNCLASSIFIED** 

Date:

Feb-98

### **UNCLASSIFIED**

CLASSIFICATION:

<b>BUDGET PROCURE</b>	MENT HISTO	RY AND P	LANNING EXHIBIT	(P-5A)		Weapon System		A. DATE		
						TOMAHAWK			Feb-98	
B. APPROPRIATION/BUDG	ET ACTIVITY				C. P-1 ITEM NOM	ENCLATURE			SUBHEAD	
Weapons Procureme	ent, Navy				Tomahawk (F	PEO(CU))				J2EL
<b>BA2/Other Missiles</b>					(BLI: 210100	)				
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
		(000)								
All-Up-Round 01000/FY97	120	569	NAVAIR	N/A	SS/OPTION	Hughes Missiles	Jan 97	Oct 98	YES	N/A
01000/FY97 01000/FY98	35 65	506 506	NAVAIR NAVAIR	N/A N/A	SS/OPTION SS/OPTION	Systems Co. Tucson, AZ	Apr 98 Apr 98	Oct 99 Oct 99	YES YES	N/A N/A

D. REMARKS

155 missiles will be procured with FY97 dollars: 120 have been procured with the FY97 contract option and 35 will be procured with FY98 contract option.

P-1 SHOPPING LIST ITEM NO. 4 PAGE NO. 4 DD Form 2446-1, JUL 87

		DULE	E, P-2	1													DATE												
	′										١	Nea	pon	•			Tor	naha	awk	(PE					0100	<b>D</b> )			
			ufacturer's ALT Prior A and Location MSR 1-8-5 MAX to Oct 1																										
	Name	and L	ocatio		M	SR	1-8	8-5	MA	λX														Tota	al				
			Syste	ms	N	/A	2	0	50	)		6			3			21						24			mo	nths	3
					FISCAL YEAR 1997																								
F	S	Q	D	D B 1996 CALENDAR YEAR 199 E A O N D J F M A M J J A											,					FISC				EAR 1	998			-	
Y	V C	T Y	E L		O C T	N O V	D E C			M A R	A I P I R I	M A Y	J U	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L
95		217	0	217	18	18	18	18	18	18	18	18	18	18	18	19													0
95		57	0	57													4	4	4	4	5	5	5	5	5	5	5	6	0
96		107	0	107													9	9	9	9	9	9	9	9	9	9	9	8	0
									FISC	ΑΙ Υ	FAR 1	999									FISC	AL Y	FAR	2000					十
F	S	Q	D	В		1998							IDAR	YEAR	1999	)									EAR 2	2000			
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98		65	0	65													6	6	6	6	6	5	5	5	5	5	5	5	0
	Property of the property of th	F S V C C 97 97 97 97	F S Q T C Y  95	Manufacturer's Name and Location Hughes Missiles System Tucson, AZ  F S Q D T E C Y L  95 217 0  95 57 0  96 107 0  F S Q D T E C Y L  97 Y T E C Y L	Manufacturer's   Name and Location   Hughes Missiles Systems   Tucson, AZ	Manufacturer's   Name and Location   Minufacturer's   Name and Location   Name and Loc	Manufacturer's   Name and Location   MSR	Manufacturer's   Name and Location   MSR   1-	Navy   Production   Manufacturer's   Name and Location   MSR   1-8-5     Hughes Missiles Systems   Tucson, AZ   N/A   20     F	Manufacturer's   Name and Location   MSR   1-8-5   MA	Production Rate   Manufacturer's   Name and Location   MSR   1-8-5   MAX	Namy   Production Rate   Name and Location   MSR   1-8-5   MAX   to   Hughes Missiles Systems   Tucson, AZ   N/A   20   50	Manufacturer's   Name and Location   MSR   1-8-5   MAX   ALT Production   MSR   1-8-5   MAX   To Oct	Navy   Production Rate   Manufacturer's   Name and Location   MSR	Navy   Navy   Production Rate   Production Rate   Production Rate   ALT Prior   AL	Production Rate	Navy   Production Rate   Procuremer   ALT After   Oct 1	Navy   Navy	Navy   Production Rate   Procurement Leadtin   Name and Location   MSR   1-8-5   MAX   to Oct 1   Oct 1   Oct 1   Mfg Pl	Navy   Production Rate	Navy   Navy   Weapon System   P-1   ITEM NOM   Tomahawk (PE   Procurement Leadtimes   Name and Location   MSR   1-8-5   MAX   to Oct 1   Oct 1   Oct 1   Mfg PLT   M	Production Rate	Navy   Production Rate	Navy   Production Rate   Procurement Leadtimes   Production Rate   Production Rate   Procurement Leadtimes   Production Rate   Pro	Namufacturer's Name and Location	Name and Location   Hughes Missiles Systems   Priscal year 1997   Tell   Mark   Production Rate   Procurement Leadtimes   Name and Location   MSR	Name   Production   Rate   Rat	Name   Production   Rate   Production   Production   Rate   Prod	Production   Rate   Procurement Leadtimes   Production   Rate   Procurement Leadtimes   Procurement

DD Form 2445, JUL 87 Previous editions are obsolete P-1 SHOPPING LIST 311/244 ITEM NO 4 PAGE 5

#### **UNCLASSIFIED**

			В	UDGET ITE	M JUSTIFI	CATION SI	HEET						
					P-40							Februa	ry 1998
APPROPRIATION/BUDG	GET ACTIVITY							P-1 ITEM NO	MENCLATUR	RE			
Weapons Procuren	nent, Navy/B	A-(2) O	her Missile	es					EVOL	VED SEAS	PARROW I	IISSILE #	230700
Program Element for Co	de B Items:							Other Relate	d Program Ele	ements			
		060475	5N								N/A		
	Prior	ID										То	Total
	Years	Code	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	Complete	Program
QUANTITY		В			1]		35	74	86	110	107		412
COST (\$M)					\$2.5	\$10.3	\$35.7	\$55.7	\$59.2	\$69.4	\$69.8		\$302.6
Initial Spares (\$M)													\$0.0
Total (\$M)					\$2.5	\$10.3	\$35.7	\$55.7	\$59.2	\$69.4	\$69.8		\$302.6
Unit Cost (\$M)					N/A	N/A	1.0	0.8	0.7	0.6	0.7		0.7

#### ITEM DESCRIPTION/JUSTIFICATION:

DD Form 2454, JUN 86

The Evolved Seasparrow Missile (ESSM) Program is an international cooperative effort to design, develop, test, and produce a new and improved version of the NATO Seasparrow missile (RIM-7P) with the kinematic performance to defeat current and projected threats that possess low altitude, high velocity and maneuver characteristics beyond the engagement capabilities of the RIM-7P. The ESSM will provide an evolved kinematically improved aft-end missile section for mating, as an all up round, with the modified RIM-7P forebody guidance and warhead section. The ESSM improvement will provide the capability to counter maneuvering anti-ship missiles, expand battle space, and increase system firepower. The ESSM is designed for "quad pack" in the MK41 Vertical Launching System and to be compatible with MK29 trainable launchers for employment in AEGIS, NSSMS, and SSDS configured ships.

The FY98 request will provide for production tooling and test equipment, support equipment, and production support. The FY99 funds will support a Low-Rate Initial Production buy of 35 missiles and additional production start-up costs.

ESSM is a cooperative effort among ten NATO Seasparrow nations (Australia, Canada, Denmark, Germany, Greece, Netherlands, Norway, Spain, Turkiye, and the U.S.). An addendum to the NATO Seapsarrow Surface Missile System Memorandum of Understanding (MOU), covering the Engineering and Manufacturing Development (EMD) phase of the ESSM was signed in June 1995. Signature of the MOU for the cooperative production of ESSM was completed in January 1998.

ESSM is a Code "B" Item. Planned date of approval for service use is September 1999 ESSM RDT&E funding is included in program element 0604755N, Project U0173.

1] \$2.5M for ESSM Transistion to Production is included in the SPARROW Modification line P1-14.

P-1 SHOPPING LIST CLASSIFICATION:

ITEM NO. 5 PAGE NO 1

**UNCLASSIFIED** 

# WEAPONS PROCUREMENT, NAVY FY 1998/99 DEPARTMENT OF THE NAVY BUDGET MISSILE COST ANALYSIS EXHIBIT P-5 (Dollars in Millions)

Missile Nomenclature & Popular Name:	EVOLVED S	EASPARRO	W MISSILE	(ESSM)									Date:		February 19	998
Cost Elements	Prior Years Total Cost	FY 1995 Quantity	Quantity Unit Cost	Total Cost	FY 1996 Quantity	Quantity Unit Cost	Total Cost	FY 1997 Quantity	Quantity Unit Cost	Total Cost	FY 1998 Quantity	Quantity Unit Cost	Total Cost	FY 1999 Quantity	Quantity Unit Cost	Total Cost
Missile Hardware All Up Round 1/ Warhead Compatible Telemeter Total Hardware														35 3	613 108	
Procurement Support Tooling and Test Equipment Shipping Containers Launch Adapter Kit - MK 29/48 Production Support Total Procurement Support										2,478 2,478			6,565 2,349 8,914	35 35	4 11	6,542 140 385 4,712 11,779
Total Flyaway Cost										2,478			8,914			33,558
Fleet Support Support Equipment Integrated Logistics Support Total Fleet Support													1,363 1,363			785 1,329 2,114
Weapon System Cost										2,478			10,277			35,672
Modifications Initial Spares																
Total Program Cost										2,478			10,277			35,672

<sup>1/</sup> Assumes a 7P front end is provided as GFE

P-1 SHOPPING LIST ITEM NO. 5 PAGE NO 2

CLASSIFICATION:

**UNCLASSIFIED** 

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HENT HISTC	RY AND P	LANNING EXHIBIT	(P-5A)		Weapon System		A. DATE		
									ry 1998
	(O) O(I)	B#' 'I				<b>"00070</b>		SUBHEAD	4056
nt, Navy/BA	-(2) Otner	MISSILES		EVOLVED SE	EASPARROW MISSILE	#23070	U		12ES
QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILAE
35	613	NAVSEA	Mar-98	SS/FP	HMSC, Tucson, AZ	Jan-99	Jan-01	Yes	
	T ACTIVITY ent, Navy/BA	QUANTITY UNIT COST (000)  35 613 3 108 35 4	T ACTIVITY ent, Navy/BA-(2) Other Missiles  QUANTITY UNIT COST (000)  35 613 NAVSEA 3 108 NAVSEA 35 4 NAVSEA	QUANTITY	C. P-1 ITEM NOM	TACTIVITY ent, Navy/BA-(2) Other Missiles  C. P-1 ITEM NOMENCLATURE EVOLVED SEASPARROW MISSILE  CONTRACT METHOD CONTRACTOR AND LOCATION OF PCO  35 613 NAVSEA NAVSEA Mar-98 SS/FP HMSC, Tucson, AZ NAVSEA Mar-98 SS/FP HMSC, Tucson, AZ SS/FP HMSC, Tucson, AZ NAVSEA Mar-98 SS/FP HMSC, Tucson, AZ	C. P-1 ITEM NOMENCLATURE   EVOLVED SEASPARROW MISSILE #23070	C. P-1 ITEM NOMENCLATURE   EVOLVED SEASPARROW MISSILE #230700	C. P-1 ITEM NOMENCLATURE   SUBHEAD

P-1 SHOPPING LIST

Exhibit P-20, Requirements Study	Approp Co	de/BA		Subhead		Date:		
	Weapons I	Procurement, N	Navy/BA-(2)		12ES		February 19	98
P-1 Line Item Nomenclature	•			Oct 1): 03 i	months	Prod Leadt	ime: 20 mon	
EVOLVED SEASPARROW MISSILE #230700			·	•				
Project Unit/Item								
EVOLVED SEASPARROW MISSILE	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Buy Summary QTY				35	74	86	110	107
Unit Cost				1.0	0.8	0.7	0.6	0.7
Total Cost	0	2.5	10.3	35.7	55.7	59.2	69.4	69.8
Asset Dynamics								
Beginning Asset Position						0	38	103
Deliveries from all prior year funding								
Deliveries from FY 1997 funding								
Deliveries from FY 1998 funding								
Deliveries from FY 1999 funding						35		
Deliveries from subsequent years' funding						6	75	88
Other Gains								
Combat Losses/Usage								
Training Losses/Usage							-4	
Test Losses/Usage						-3	-6	-9
Other Losses/Usage								
Disposals/Retirements/Attritions/etc.								-9
End of Year Asset Position						38	103	153
Inventory Objective/Current Authorized Allowance						119	278	422
Inventory Objective Actual Training Expenditures	Other than Usage	Training I	Disposals (Vehicles/0	 Other)				
FY-96 thru	FY-96 thru		FY-96 thru					
4/96:	4/96:		4/96:					
FY-95: 0	FY-95: 0		FY-95: 0					
FY-94: 0	FY-94: 0		FY-94: 0					
FY-93: 0	FY-93: 0		FY-93: 0					
TOTAL: 0	0		0					
REMARKS:	•		•		•		•	•

P-1 Shopping List Item No. 5

FY 1998/99 BUDGET PRODUC	TION	SCHE	<b>DULF</b>	Ξ, P-2′	1													DATE	=			Febr	ruar	y 19	98					
APPROPRIATION/BUDGET ACT	TIVITY	Y				0						<u>'</u>	Wea	apon	Sy:	stem			ITEN		OME	ENC	LAT	TURE	Ε					
Weapons Procurement, N	avy/l	BA-(2	2) Of	ther I	Missi							<u></u>										SPA	RR	OW	MISS	iLE	#2	.307	00	
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EVOLVED SEASPARROW MISSILE		HMS	C, Tucso	on, AZ		20	0	40	0	70	D .	<u> </u>	6		<u> </u>	3		<u> </u>	24		<u> </u>	20			23					
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DD Form 2445, JUL 87 Previous editions are obsolete P-1 SHOPPING LIST

311/244 ITEM NO. 5 PAGE 5 Exhibit P-21 Production Schedule

#### **CLASSIFICATION:**

#### UNCLASSIFIED

			BUDGE P-40	ET ITEM JU	STIFICATION	ON SHEET	-				DATE: Februa	ry 1998
APPROPRIATION/BUDG Weapons Procurem	_						P-1 ITEM NC	MENCLATUR		AAM		
Program Element for Cod <b>BA 2 - Other Missile</b>	le B Items:						Other Related	d Program Ele		AAIVI		
	Prior Years	ID Code	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Program
QUANTITY	948		115	100	120	115	115	100	150	125	531	2,419
COST (\$M)	\$788.8		\$72.6	\$50.3	\$55.3	\$62.6	\$61.3	\$55.9	\$80.3	\$69.3	\$317.5	\$1,614.0
Initial Spares (\$M)	\$20.7		\$1.1	\$2.3	\$0.4	\$0.9	\$0.9	\$0.4	\$0.4	\$0.7	\$12.4	\$40.3
Total (\$M)	\$809.5		\$73.7	\$52.6	\$55.7	\$63.5	\$62.2	\$56.3	\$80.7	\$70.0	\$329.9	\$1,654.1
Unit Cost (\$M)	\$0.854		\$0.641	\$0.526	\$0.464	\$0.552	\$0.541	\$0.563	\$0.538	\$0.560	\$0.621	\$0.684

#### MISSION AND DESCRIPTION:

The Advanced Medium Range Air-to Air Missile (AMRAAM) is the next generation all-weather, all-environment radar guided missile developed by the Air Force and Navy to augment the AIM-7 Sparrow. AMRAAM is smaller, faster lighter, and has improved capabilities against very low-altitude and high-altitude targets in an electronic countermeasure environment. AMRAAM incorporates an active radar in conjunction with an inertial reference unit and microcomputer system which makes the missile less dependent upon the aircraft fire control system. This advanced capability enables the pilot to aim and fire several missiles at multiple targets.

#### FY1999 PROGRAM JUSTIFICATION:

DD Form 2454, JUN 86

115 missiles will be procured in FY 1999 along with non-recurring support costs such as; government field activity technical, test, and logistics support, procurement of test articles, containers, handling equipment, special tooling and test equipment to support the AlM-120C configuration, and procurement of peculiar support equipment in support of the all-up-round and component depot. The contractor for AMRAAM is Raytheon Corporation, which acquired Hughes Defense Systems in December, 1997.

P-1 SHOPPING LIST

ITEM NO 6 PAGE NO 1

CLASSIFICATION:

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# WEAPONS PROCUREMENT, NAVY FY 1999 PRESIDENT'S BUDGET MISSILE COST ANALYSIS EXHIBIT P-5 (Dollars in Millions)

Missile Nomenclature & Popular Nan	ne	AMRAAM								Date:	February 1	998	
Cost Elements	Prior Years Total Cost	FY 1996 Quantity	Quantity Unit Cost	115 Total Cost	FY 1997 Quantity	Quantity Unit Cost	100 Total Cost	FY 1998 Quantity	Quantity Unit Cost	120 Total Cost	FY 1999 Quantity	Quantity Unit Cost	115 Total Cost
COST Elements	Total Cost	Quantity	Offic Cost	Total Cost	Quantity	Offic Cost	Total Cost	Quantity	Offic Cost	Total Cost	Quantity	OTIIL COSL	Total Cost
Missile Hardware													
Guidance & Control	458.054	115		29.456	100	0.272		120	0.257	30.851	115	0.265	30.423
Propulsion	40.716	115	0.023	2.618	100	0.024		120	0.023		115	0.024	2.704
Warhead	10.179	115	0.006	0.655	100	0.006		120	0.006		115	0.006	0.676
ECO	23.542			2.293			1.501			1.714			1.690
Procurement Support													
Production Tech Support	98.745			21.108			12.629			7.998			13.948
ST&TE	41.109			0.000			0.000			0.700			0.600
Containers	2.130			0.000			0.116			0.000			0.000
Production Test	35.691			7.634			2.201			2.100			4.900
	00.00												
Total Procurement Support	177.675			28.742			14.946			10.798			19.448
Total Flyaway Cost	710.165	115	0.554	63.763	100	0.466	46.626	120	0.390	46.790	115	0.478	54.941
Fleet Support													
Test Equipment	50.016			3.914			0.328			2.810			2.180
Handling Equipment	0.225			0.160			0.320			0.100			0.120
Training Equipment	3.647			0.000			0.155			1.300			1.200
ILS	23.322			4.592			2.774			4.100			4.000
Data & Pubs	1.461			0.146			0.180			0.150			0.200
Data d 1 dbs	1.401			0.140			0.100			0.100			0.200
Total Fleet Support	78.671			8.813			3.626			8.460			7.700
Weapon System Cost	788.836	115	0.631	72.576	100	0.503	50.252	120	0.460	55.250	115	0.545	62.641
Modifications													
Initial Spares	20.707			1.133			2.272			0.368			0.929
initial Oparoo	20.707			1.100			2.212			0.000			0.020
Total Program Cost	809.543	115	0.641	73.709	100	0.525	52.524	120	0.463	55.618	115	0.553	63.570
				ITEM NO.	6	PAGE NO.	2						

# WEAPONS PROCUREMENT, NAVY FY 1999 PRESIDENT'S BUDGET MISSILE COST ANALYSIS EXHIBIT P-5 (Dollars in Millions)

866	Total Cost	879.707 78.196 19.549 47.615	264.232 46.945 4.094 78.041	393.313	1,418.380	112.093 1.630 11.902 65.698 4.248	195.571	1,613.951	40.256	329.955 1,654.207	
February 1998	To Complete <u>Costs</u>	164.667 14.637 3.659 9.148	49.722 0.436 1.548 12.215	63.921	256.032	48.146 0.434 0.000 11.610	61.501	317.533	12.422		
Date:	125 Total Cost	37.626 3.345 0.836 2.090	15.276 0.600 0.000 2.800	18.676	62.573	0.899 0.101 1.600 3.800 0.300	6.700	69.273	0.722	69.995	
	Quantity Unit Cost	0.301 0.027 0.007			0.501			0.554		0.560	
	FY 2003 Quantity	125 125 125			125			125		125	
	150 Total Cost	44.737 3.977 0.994 2.485	16.046 3.200 0.000 2.800	22.046	74.239	0.900 0.100 1.400 3.600	6.100	80.339	0.373	80.712	8
	Quantity Unit Cost	0.298 0.027 0.007			0.495			0.536		0.538	6 PAGE NO. 3
	FY 2002 Quantity	150 150 150			150			150		150	9
	100 Total Cost	26.454 2.351 0.588 1.470	14.658 0.200 0.000 3.400	18.258	49.121	1.400 0.100 1.400 3.700 0.200	6.800	55.921	0.438	56.359	ITEM NO.
	Quantity Unit Cost	0.265 0.024 0.006			0.491			0.559		0.564	
	FY 2001 Quantity	100 100 100			100			100		100	
	115 Total Cost	30.279 2.691 0.673 1.682	14.103 0.100 0.300 4.300	18.803	54.128	1.500 0.100 1.200 4.200 0.200	7.200	61.328	0.892	62.220	
VAIN	Quantity Unit Cost	0.263 0.023 0.006			0.471			0.533		0.541	
AMRAAN	FY 2000 Quantity	115 115			115			115		115	
Missile Nomenclature & Popular Name:	Cost Elements	Missile Hardware Guidance & Control Propulsion Warhead ECO	Procurement Support Production Tech Support ST&TE Containers Production Test	Total Procurement Support	Total Flyaway Cost	Fleet Support Test Equipment Handling Equipment Training Equipment ILS Data & Pubs	Total Fleet Support	Weapon System Cost	Modifications Initial Spares	Total Program Cost	

CLASSIFICATION:

## **UNCLASSIFIED**

GET PROCURE	MENT HISTO	RY AND P	PLANNING EXHIBIT	(P-5A)		Weapon System  AMRAAM		A. DATE	Fahruary 10	
PROPRIATION/BUDGE					C. P-1 ITEM NOM				February 19 SUBHEAD	98
oons Procurem	ent, wavy					AMRAAM			Y2	GB
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILAB
FY 1996	60 55	268 275	Eglin AFB, FI	9-21-95	C/FP C/FP	Lot X Hughes, Tucson AZ Raytheon, Lowell MA	1/29/96 1/29/96	12/97 12/97	YES YES	
FY 1997	53 47	286 297	Eglin AFB, FI	10-4-96	C/FP C/FP	Lot XI Hughes, Tucson AZ Raytheon, Lowell MA	1/28/97 1/28/97	12/98 12/98	YES	
FY 1998	120	300	Eglin AFB, FI	10-1-97	SS/FP	Lot XII Raytheon	3/31/98	10/99	YES	
FY 1999	115	309	Eglin AFB, FI	10-1-98	SS/FP	Lot XIII Raytheon	1/31/99	8/00	YES	

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FY 1999 BUDGET PRODUC APPROPRIATION/BUDGET	ACTIVITY		LE, P-	21										apon				DATE P-1 I	TEM	I NOI				RE						
Weapons Procurement	, navy													AMR				<u> </u>	1.1				AM	RA/	4M					
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AMRAAM	Rayth	neon, L	owell,	MA		30 60 75 4 mo 4 mo						mo		21	mo		18	mo		26	mo		Е							
						FISCAL YEAR 1997																								
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ITEM / MANUFACTURER	F	S	Q		В	1996 CALENDAR YEAR 1997								,						CA	LEND	AR YE	EAR 1	998	.,,		i			
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AMRAAM FY 1995			1132	0	1132																									
HUGHES	95	AF	197	0	197			27	17	17	4	6	10	12	13	21	19	18	33											0
HUGHES	95	N	46	0	46			7	7	14	3	3	8	4																0
RAYTHEON	95	AF	264	0	264							4	3	2	6	2	11	26	31	56	66	57		-						0
RAYTHEON	95	N	60	0	60							2	2	11	12	15	14	1		2	1									0
HUGHES	95	FMS	234	0	234	5	7		10	8	35	29	25	16	23	20	21	20	15											0
RAYTHEON	95	FMS	307	0	307					2	43	34	34	32	10	36	40	40	36											0
HUGHES *	95	F-18	10	0	10			1	1	1	1	1	1	1	1	1	1													0
RAYTHEON *	95	F-18	14	0	14							2	2	2	2	2	2	1	1											0
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Remarks: \* Funded with F/A-18 RDT&E,N funds.

FY95 quantities do not include 48 AF missiles procured with prior year funds and 1 missile funded with AF R&D.

DD Form 2445, JUL 87 Previous editions are obsolete P-1 SHOPPING LIST

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	F Y 96 96 96 96 96 96 96 96 96 96 96 96 96	Name a	Name and Lo Hughes, Tucson A Raytheon, Lowell,  F S Q Y V T C Y  96 AF 150 96 N 60 96 AF 141 96 N 55 96 FMS 461 96 AV8 3 96 AV8 3 96 AV8 3 F S Q Y V T C Y  1297 96 AF 150 96 N 60 97 O T C Y	F S Q D D T E C Y L C Y L C Y L C Y L C Y L C Y L C Y L C Y L C Y L C	Name and Location Hughes, Tucson AZ Raytheon, Lowell, MA  F S Q D B Y V T E A C Y L L  1297 0 1297 96 AF 150 0 150 96 N 60 0 60 96 AF 141 0 141 96 N 55 0 55 96 FMS 461 0 461 96 FMS 424 0 424 96 AV8 3 0 3 96 AV8 3 0 3 97 Y V T E A C Y L L  1297 1028 269 98 AF 150 150 0 98 AF 150 150 0 99 AF 150 150 0 99 AF 150 150 0 99 AF 150 150 0 99 AF 141 102 39 99 N 55 55 0 99 FMS 461 405 56 99 FMS 424 250 174 99 AV8 3 3 3	Name and Location Hughes, Tucson AZ Raytheon, Lowell, MA   F S Q D B Y V T E A C Y L D  1297 0 1297  96 AF 150 0 150  96 N 60 0 60  96 AF 141 0 141  96 N 55 0 55  96 FMS 461 0 461  96 FMS 424 0 424  96 AV8 3 0 3  96 AV8 3 0 3  F S Q D B Y V T E A C T   1297 1028 269  96 AF 150 150 0  96 AF 150 150 0  96 AF 150 150 0  96 AF 150 150 0  96 AF 150 150 0  96 AF 141 102 39 12  96 N 55 55 0  96 FMS 461 405 56 56  96 FMS 424 250 174 58  96 AV8 3 3 3 0	Manufacturer's   Name and Location   MSR	Manufacturer's   Name and Location   MSR   2-1	Manufacturer's   Name and Location   MSR   2-8-5     Hughes, Tucson AZ   30   60     Raytheon, Lowell, MA   30   60     F	Name and Location       MSR       2-8-5       MAX         Hughes, Tucson AZ       30       60       75         Raytheon, Lowell, MA       30       60       75         F       S       Q       D       B       1996       1998       1996       1996       1996       1996       1996       1996       1996       1996       1996       1996       1996       1996       1996       1996       1996       1998       1996       1996       1996       1996       1996       1996       1996       1996       1996       1996       1996       1996       1996       1996       1996       199	Manufacturer's Name and Location Hughes, Tucson AZ Raytheon, Lowell, MA  SO  F S S Q D B T S S Q D C S S S S S S S S S S S S S S S S S S	Manufacturer's   Name and Location   MSR   2-8-5   MAX   to	Manufacturer's   Name and Location   MSR   2-8-5   MAX   to Oct	Manufacturer's Name and Location	Manufacturer's   Name and Location   MSR   2-8-5   MAX   to Oct 1   MIST   MI	Manufacturer's   Name and Location   MSR   2-8-5   MAX   to Oct 1   Oct 1   Oct 1	Manufacturer's Name and Location	Manufacturer's   MSR   2-8-5   MAX   ALT Prior   To Oct 1   MSR   Alt Alter   To Oct 1   MSR   Alter   To Oct 1   MSR   Alter   To Oct 1   MSR   Alter   To Oct 1   MSR   Alter   To Oct 1   MSR   Alter   To Oct 1   MSR   Alter   To Oct 1   MSR   To Oct 1   MSR   To Oct 1   To	Manufacturer's   MSR   2-8-5   MAX   ALT Prior   to Oct 1   Oct 1   Mfg Pl	Manufacturer's   MSR   2-8-5   MAX	Manufacturer's   MSR   2-8-5   MAX	Manufacturer's   Manu	Manufacturer's   Manu	Manufacturer's   MSR   2-8-5   MAX   to Oct 1   Oct 1   Oct 1   Mfg PLT   Manufacturer's   MSR   2-8-5   MAX   ALT Prior   Cot 1   Mfg PLT   Mfg PLT   Total   Mfg PLT   Mfg PLT   Total   Mfg PLT   Mfg PLT   Mfg PLT   Total   Mfg PLT   Mfg PLT   Mfg PLT   Mfg PLT   Total   Mfg PLT   Mfg P	Manufacturer's   MSR   2-8-5   MAX   ALT Prior   Cot 1   Mfg PLT   Mfg PLT   Total	Manufacturer's   Mark and Location   MSR   2-8-5   MAX   ALT Prior   to Oct 1   Oct 1   Oct 1   Oct 1   Oct 1   Mfg PLT   Mfg PLT   Total   New plane and Location   MSR   2-8-5   MAX   ALT Prior   to Oct 1   Oct 1   Oct 1   Oct 1   Mfg PLT   Mfg PLT   Total   New plane and Location   MSR   2-8-5   MAX   ALT Prior   to Oct 1   Oct 1   Oct 1   Oct 1   Oct 1   Mfg PLT   Mfg PLT   Total   New plane and Location   MSR   2-8-5   MAX   ALT Prior   to Oct 1   Oct 1   Oct 1   Oct 1   Mfg PLT   Mfg	Manufacturer's   Manu	Manufacturer's Name and Location   MSR   2-8-5   MAX   ALT Prior   to Oct 1   Oct 1   Mfg PLT   Total   Measure Mfg PLT   Total   Measure Mfg PLT   Total   Measure Mfg PLT   Total   Measure Mfg PLT   Total   Measure Mfg PLT   Total   Measure Mfg PLT   Total   Measure Mfg PLT   Total   Measure Mfg PLT   Total   Measure Mfg PLT   Total   Measure Mfg PLT   Total   Measure Mfg PLT   Total   Measure Mfg PLT   Mfg PLT   Total   Measure Mfg PLT   Mfg PLT   Total   Measure Mfg PLT   Mfg PLT   Mfg PLT   Total   Measure Mfg PLT   Mfg PLT	

Exhibit P-21 Production Schedule

FY 1999 BUDGET PRODUC APPROPRIATION/BUDGET A Weapons Procurement	CTIVITY		,												Sys			P-1 I	TEM	NOI		-ebr CLA	TUF							
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Remarks:																														L

Exhibit P-21 Production Schedule

FY 1999 BUDGET PRODUC APPROPRIATION/BUDGET A	CTIVITY	HEDUL	_E, P-:	21											Syst			DATE P-1 I	TEM	NON			TUI							
Weapons Procurement	, Navy													AMR	AAN								ΑI	MRA	AM					
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AMRAAM FY 1999			895	0	895																									
Raytheon Systems Co.	99	AF	180	0	180																							15	15	150
Raytheon Systems Co.	99	N	115	0	115																						l	9	9	97
Raytheon Systems Co. Remarks:	99	FMS	600	0	600																							50	50	500

FY 1999 BUDGET PRODUCT APPROPRIATION/BUDGET A Weapons Procurement,	CTIVITY	Y	JLE, F	-21								,			Sys			P-1	ITEN	ΛN		ebr ENC	LAŤ		=					
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ITEM / MANUFACTURER	F	S	Q	D	В		2000		F	ISCAL	_ YEA			JDAR	YEAF	2 200	1					FISC		EAR		EAR 2	002			
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MRAAM FY 1999 Raytheon Systems Co. Raytheon Systems Co. Raytheon Systems Co.	99 99 99	AF N FMS	895 180 115 600	148 30 18 100	747 150 97 500	15 9 50	15 9 50	15 9 50	15 10 50																					
										FISC	CAL YI	EAR 2	2003									FISC	CAL Y	EAR	2004					
ITEM / MANUFACTURER	F	S	Q	D	В	2	2002					(	CALE	NDAR	YEAF	R 200	3						CA	LEND	AR YI	EAR 2	004			1
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311/244 ITEM NO 6 PAGE 9 Exhibit P-21 Production Schedule

#### CLASSIFICATION:

DD Form 2454, JUN 86

#### UNCLASSIFIED

			В	UDGET ITE	M JUSTIFI P-40	CATION SI	HEET					DATE: Februa	ry 1998
APPROPRIATION/BUDG	GET ACTIVITY							_	MENCLATUR			•	_
Weapons Procurem	nent, Navy							Joint Stan	doff Weapo	on (JSOW)			
Program Element for Co	de B Items:							Other Relate	d Program Ele	ements			
<b>BA-2 Other Missiles</b>	S							0604727N	0604727F	, 27324F			
	Prior Years	ID Code		FY 1996	FY 1997	FY 1998*	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Program
QUANTITY	0	В		0	100	135	328	752	870	1,026	1,075	13,514	17,800
COST (\$M)	\$0.0			\$25.2	\$81.0	\$62.0	\$125.2	\$218.6	\$314.2	\$355.2	\$365.0	\$4,775.5	\$6,322.0
Initial Spares (\$M)	\$0.0			\$0.0	\$0.0	\$0.0	\$0.0	\$0.5	\$0.7	\$0.3	\$0.0	\$128.7	\$130.1
Total (\$M)	\$0.0			\$25.2	\$81.0	\$62.0	\$125.2	\$219.1	\$314.9	\$355.5	\$365.0	\$4,904.2	\$6,451.8
Unit Cost (\$M)	N/A			N/A	0.810	0.459	0.382	0.291	0.362	0.346	0.340	0.363	0.362

Joint Standoff Weapons (JSOW) is a joint USN/USAF program with the USN as the lead service. The JSOW program provides an air-to-ground glide weapon (AGM-154) capable of attacking a variety of targets during day, night and adverse weather conditions for use against fixed area targets. The JSOW will enhance aircraft survivability as compared to current interdiction weapon systems by providing the capability for launch aircraft to standoff outside the range of most target area surface-to-air threat systems. The JSOW Global Positioning System (GPS)/Inertial Navigation System (INS) capability will allow several target kills per aircraft sortie. The JSOW Baseline variant (AGM-154A) will be integrated on USN and USAF aircraft, with a planned inventory of 11,800 units. USN will procure an inventory of 8,800 All-Up-Rounds (AURs) for integration on F/A-18 and AV-8B aircraft, and the USAF will procure an inventory of 3,000 AURs for integration on F-16C/D, F-15E, B-1B and B-2 aircraft. JSOW Baseline completed EMD testing, including initial Operational Test, with an exceptional test success rate of 96% (41 of 43). JSOW Baseline full Operational Testing (OPEVAL) commenced in February 1997. JSOW BLU-108 Developmental Testing is ongoing and JSOW Unitary is currently in its initial Developmental Testing phase. JSOW Baseline (AGM 154A) Limited Rate Initial Procurement (LRIP) commenced with the USN FY 97 program. The BLU-108 variant and the Unitary variant commence production in FY 00 and FY 01, respectively. The FY98 budget request provided for the procurement of 135 Baseline variants for the Navy. The FY99 budget request provides for Full Rate Production of 328 Baseline variants and special tooling/special test equipment to support BLU-108 production in FY-00. \*FY 97 Congressional plus-up of \$15.6M was executed with the FY 98 procurement.

7

P-1 SHOPPING LIST CLASSIFICATION:

ITEM NO PAGE NO

1 UNCLASSIFIED

# WEAPONS PROCUREMENT, NAVY FY 1998/99 DEPARTMENT OF THE NAVY BUDGET MISSILE COST ANALYSIS EXHIBIT P-5 (Dollars in Millions)

Missile Nomenclature & Popular Name: <u>Joint Standoff Weap</u> ons (J	(MOSC) suoc								Date:	February 1998	у 1998	
Prior Years Cost Elements Total Cost	FY 1996 Quantity	Quantity Unit Cost	Total Cost	FY 1997 Quantity	Quantity Unit Cost	Total Cost	FY 1998 Quantity	Quantity Unit Cost	Total Cost	<b>FY 1999</b> Quantity	Quantity Unit Cost	Total Cost
Missile Hardware												
All Up Round (AUR) Contractor (Warranty/ECO/Data)	00		0.000	100		42.221 0.713	135 ,		50.997 1.725	328		84.602 5.076
Total Hardware	00	0.000	0.000	100	0.429	42.934	135	0.391	52.722	328	0.273	89.678
Procurement Support LC GEU/Control Gov't In-house/Prod Supt Special Tools and Test Equip Containers			0.000 0.000 25.198 0.000			7.386 4.464 3.100 2.137 2.784			3.847 6.090 8.203 2.228 0.000			0.000 3.313 24.604 3.651 1.936
Command & Launch/ ST&E/Mssion/SW Total Procurement Support			0.000			0.760 20.631			0.907 21.275			0.000
Total Flyaway Cost			25.198	100	0.636	63.565	135	0.548	73.997	328	0.376	123.182
Fleet Support												
ILS/Support			0.000			1.879			3.604			2.025
Total Fleet Support			0.000			1.879			3.604			2.025
Weapons System Cost			25.198	100	0.654	65.444	135	0.575	77.601	328	0.382	125.207
FY 97 Congressional Add Adjustment Net P-1 Cost					'	15.574 81.018			-15.574 62.027			
Modifications Initial Spares			0 0			0 0			0 0			0.469
Total Program Cost		*FY 97 Con	25.198 gressional pl	100 lus-up of \$1	0.810 5.6M will be	81.018 executed wit	25.198 100 0.810 81.018 135 0.459 *FY 97 Congressional plus-up of \$15.6M will be executed with the FY 98 procurement	0.459 procurement	62.027	328	0.383	125.676

Page No. 2

Item No.

# WEAPONS PROCUREMENT, NAVY FY 1998/99 DEPARTMENT OF THE NAVY BUDGET MISSILE COST ANALYSIS EXHIBIT P-5 (Dollars in Millions)

Date:	
Joint Standoff Weapons (JSOW)	
Missile Nomenclature & Popular Name:	1

Missile Nomenclature & Popular Name: Joint Standoff Weapons (JSOW)	Joint Stand	off Weapons	(MOSC) s									Date:	Februs	February 1998
Cost Elements	FY 2000 Quantity	Quantity Unit Cost	Total Cost	FY 2001 Quantity	Quantity Unit Cost	Total Cost	FY 2002 Quantity	Quantity Unit Cost	Total Cost	FY 2003 Quantity	Quantity Unit Cost	Total Cost	Complete Costs	Total Cost
Missile Hardware														
All Up Round (AUR) Contractor (Warranty/ECO/Data)	752		179.556 10.773	870		269.306 14.817	1,026		306.113 16.949	1,075		291.799 17.508	4,299.671 258.573	5,524.266 326.134
Total Hardware	752	0.239	190.329	870	0.310	284.123	1,026	0.298	323.062	1,075	0.271	309.307	4,558.244	5,850.400
Procurement Support LC GEU/Control Gov't In-house/Prod Supt Special Tools and Test Equip Containers Telemetry Command & Launch/ST&E/Mssion/SW Total Procurement Support			0.000 2.924 12.183 7.491 3.713 0.000			0.000 5.647 7.473 8.181 5.380 0.320 27.001			0.000 6.500 4.432 9.446 5.210 0.000 25.588			0.000 6.030 24.087 9.773 5.314 0.000	-0.093 28.468 3.482 122.267 38.226 0.000 192.350	11.140 63.433 112.762 165.174 62.563 1.018 416.090
Total Flyaway Cost	752	0.288	216.640	870	0.358	311.124	1,026	0.340	348.650	1,075	0.330	354.511	4,750.594	6,266.490
Fleet Support														
ILS/Support			1.971			3.088			6.459			10.488	25.717	55.231
Total Fleet Support			1.971			3.088			6.459			10.488	25.717	55.231
Weapon System Cost	752	0.291	218.611	870	0.361	314.212	1,026	0.346	355.109	1,075	0.340	364.999	364.999 4,776.311	6,321.721
Modifications Initial Spares			0.000			0.000			0.000			0.000	0.000	0.000
Total Program Cost	752	0.291	219.201	870	0.362	314.878	1,026	0.346	355.396	1,075	0.340	364.999	4,904.429	6,451.851
			P-1 No.			Page No. 3								

### CLASSIFICATION: UNCLASSIFIED

BUDGET PROCUREN	MENT HISTO	RY AND F	PLANNING EXHIBIT	(P-5A)		Weapon System		A. DATE		
					1			Februar		
B. APPROPRIATION/BUDGE Weapons Procureme	nt, Navy				C. P-1 ITEM NON				SUBHEAD Y2	JS
B.A. 2-Other Missiles					Joint Stando	ff Weapon				
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
Special Tools/ Test Equipment										
FY-96	Lot	N/A	NAVAIR	N/A	SS/CPIF (option on E&MD)	TEXAS INSTRUMENTS (Lewisville, TX)	Mar 96	Dec 96	N/A	N/A
FY-99	Lot	N/A	NAVAIR	May 98	SS/FPIF	RAYTHEON SYSTEMS (Lewisville, TX)	Nov 98	Aug 99	N/A	N/A
LRIP FY-97	100	429	NAVAIR	N/A	SS/CPIF (option on E&MD)	RAYTHEON SYSTEMS (Lewisville, TX)	Feb 97	May 98	N/A	N/A
FY-98	135*	391	NAVAIR	May 97	SS/FPIF	RAYTHEON SYSTEMS (Lewisville, TX)	Dec 97	Jan 99	N/A	N/A
FY-99	328	273**	NAVAIR	May 98	SS/FPIF	RAYTHEON SYSTEMS (Lewisville, TX)	Dec 98	Jan 00	N/A	N/A

#### D. REMARKS

<sup>\*</sup>FY 97 Congressional plus-up of \$15.6M was executed with the FY 98 procurement.

<sup>\*\*</sup>Reduced unit cost reflects the introduction of USAF quantities as well as an increase in USN quantities.

FY 1998/99 BUDGET PRODUC		CHED	ULE, F	P-21														DATE						199	7					
APPROPRIATION/BUDGET ACT Weapons Procurement, N													Wea	apon	Sys <b>JS</b> (	stem OW		P-1	ITE					URE NDO	FF\	NEA	.PON	١		
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JSOW/Raytheon Systems							·	Ū						-	_		•		•		-			``		.,	_			
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JSOW/Raytheon Systems																														
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DD Form 2445, JUL 87 Previous editions are obsolete P-1 SHOPPING LIST 311 / 244 ITEM NO PAGE

PAGE Exhibit P-21 Production Schedule

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FY 1998/99 BUDGET PRODUC	TION :	SCHE	.DULF	≟, P-21	ı													DATE						199						
APPROPRIATION/BUDGET ACT		,										,	Wea	apon			1	P-1	ITEN	$\overline{N}$	OME	NCI	LAT	URE	:					
Weapons Procurement, N	avy										ı	l			JS	ow	l			,	JOIN	T S	TAN	1DO	FF V	۷EA	109	1		
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\* Assumes the program has reached a stable production running rate and is utilizing a 2/8/5 shift.

ITEM NO

#### **CLASSIFICATION:**

### **UNCLASSIFIED**

												DATE:	
					P-40							FEBRUA	ARY 1998
APPROPRIATION/BUDGET	Γ ACTIVITY							P-1 ITEM NC	MENCLATUR	RE		35582	
Weapons Procuremer	it, Navy/ B	<b>4</b> 2						STAN	IDARD MIS	SILE(SM-2	MR/ER) 12	FE BLI:2	23400
Program Element for Code I	B Items:							Other Related	d Program Ele	ements			
	Prior	ID										To	Total
	Years	Code	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	Complete	Program
QUANTITY	9,845	Α	188	22	127	100	115	95	110	126	159	1,639	12,526
COST (\$M)	\$5,869.2	Α	\$240.4	\$125.6	\$209.4	\$176.4	\$225.7	\$194.9	\$184.7	\$209.2	\$238.2	2,082	\$9,755.5
Initial Spares (\$M)	\$132.1	Α	\$4.0	\$7.6	\$5.4	\$1.2	\$8.2	\$9.6	\$12.4	\$14.1	\$13.6	122	\$330.5
Total (\$M)	\$6,001.3	Α	\$244.4	\$133.2	\$214.8	\$177.6	\$233.9	\$204.5	\$197.1	\$223.3	\$251.8	2,204	\$10,086.0
Unit Cost (\$M)	0.6	A	1.3	6.1	1.7	1.8	2.0	2.2	1.8	1.8	1.6		_

#### (U)PROGRAM OVERVIEW:

The STANDARD Missile SM-2 Medium Range (MR) and Extended Range (ER) are solid-propellant, tail-controlled surface-to-air missiles which are the main air defense battery for AEGIS/NTU guided missile cruisers and destroyers. The SM-2 Block IIIA and earlier variants are currently deployed.

- (U) Continually being upgraded to preserve battle group effectiveness against evolving cruise missile and Tactical Ballistic Missile (TBM) threats, SM-2 has three improvements which will be procured for AEGIS cruisers and destroyers equipped with the MK41 Vertical Launch System (VLS). The SM-2 Block IIIB configuration improves the Block IIIA baseline through the Missile Homing Improvement Program(MHIP) to address a specific type of deployed threat. SM-2 Block IV, with a new separable booster, evolves the Block IIIA baseline missile to provide greater kinematic capability and dramatic increases in performance of Block IIIA. The SM-2 Block IVA is a product improvement to the Block IV missile to provide a near term capability against TBMs with an objective of maintaining the current Block IV AAW capability.
- (U) In the event that the SM-2 Blk IVA EMD exit criteria are met on schedule, FY99 production will be SM-2 Blk IVA vice Blk IV.
- (U) The mix of SM-2 Blk IVs and IVA's in FY99 may change as a result of the IVA EMD schedule.

P-1 SHOPPING LIST

ITEM NO 8

CLASSIFICATION:

**UNCLASSIFIED** 

DD Form 2454, JUN 86

PAGE NO 1

# WEAPONS PROCUREMENT, NAVY 1999 DEPARTMENT OF THE NAVY BUDGET MISSILE COST ANALYSIS EXHIBIT P-5 (Dollars in Millions)

						Date:	FEBRUARY	<b>/</b> 1998	
STANDARD MISSILE (SM-2 MR/ER)									
Cost Elements	FY 1997 Quantity	Quantity Unit Cost	Total Cost	FY 1998 Quantity	Quantity Unit Cost	Total Cost	FY 1999 Quantity	Quantity Unit Cost	Total Cost
Missile Hardware									
G,C&A/MK72 BOOSTER(FE001)									
AEGIS BLK IIIA									
AEGIS BLK IIIB	80 47	527.5	42,197	72 28	669.0	48,166	70 45	622.6	43,582
AEGIS BLK IV AEGIS BLK IVA	47	1,627.3	76,482	20	1,821.7	51,007	40	1,683.9	75,777
SM AEGIS IMPROV									
REQUEST FOR EQUITABLE ADJ (REA)									
MK104 DTRM(FE009)	127	53.3	6,764	100	52.4	5,237	115	54.9	6,309
REQUEST FOR EQUITABLE ADJ (REA)	407		4.450	400		0.40	445		
MK54 S&A DEVICE(FE003)	127	9.1	1,158	100	8.4	840	115	7.8	902
MK45 TDD MOD 9/10(FE005)	127	48.3	6,134	100	44.9	4,494	115	48.8	5,607
MK125 WARHEAD(FE006)	127	20.8	2,647	100	19.2	1,921	115	17.9	2,063
Total Hardware	127	1,066.0	135,382	100	1,116.7	111,665	115	1,167.3	134,240
Procurement Support									
CONTRACTOR ENGINEERING (FE830)			11,040			11,010			16,378
GOVERNMENT IN-HOUSE ENG(FE830)			4,748			4,783			8,264
QUALITY ASSURANCE (FE840) DOCUMENTATION(FE954)			2,459 1,078			2,383 1,028			2,509 1,628
PRODUCTION PROOF (FE955)			5,588			5,095			6,890
EVAL SERV& MAT'L(FE860)			18,366			17,498			18,593
CONTAINERS(FE957)			1,106			992			2,024
TOOLS AND TEST EQUIP(FE950)			8,826			4,425			6,144
COMPONENT IMPROVEMENTS(FE850)			5,198			3,898			9,423
INSTAL &CHECKOUT EQUIP(FE970)			6,732			6,483			7,471
SPEC HANDL EQUIP(FE971) TRNG MTL EXP & NON-EXP(FE972)			502 5,878			502 4,082			1,550 7,993
FLEET DOCUMENTATION(FE973)			1,368			1,468			1,468
ILS(FE980)			1,177			1,127			1,127
Total Procurement Support			74,066			64,774			91,462
Total Flyaway Cost			193,791			162,777			206,093
Fleet Support			15,657			13,662			19,609
Total Fleet Support									
Weapon System Cost			209,448			176,439			225,702
Modifications			16,864			35,601			46,433
Initial Spares			5,393			1,162			8,203
Total Program Cost			231,705			213,202			280,338

ITEM 8

# CLASSIFICATION: UNCLASSIFIED

BUDGET PROCUREM	MENT HISTO	RY AND PLA	ANNING EXHIBIT (P	-5A)		Weapon System		A. DATE BRUARY 1	998	
B. APPROPRIATION/BUDGET				C.	P-1 ITEM NOMENCLA	ATURE		BROART	SUBHEAD	
weapons Procureme	III, Navy/DA	<b>1-2</b>			1	STANDARD MISSILE	(SM2 MR	/ER)	12FE	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF YES WHEN AVAILABLE
UNIQUE SM2 MR/ER HARDWARE FE001 GC&A/MK72 BOOSTER										
FY97 BLK IIIB AEGIS FY97 BLK IV AEGIS FY98 BLK IIIB AEGIS FY98 BLK IV AEGIS FY99 BLK IIIB AEGIS FY99 BLK IV AEGIS	80 47 72 28 65 43	527.5 1627.3 669 1821.7 670.5 1762.3	NAVSEA NAVSEA NAVSEA NAVSEA NAVSEA NAVSEA		FFP/AF FPI/AF FFP/AF FFP/AF FFP/AF	SMCO - McClean, VA SMCO - McClean, VA	04/97 04/97 02/98 02/98 01/99 01/99	04/99 04/99 01/00 01/00 01/01 01/01	YES YES YES YES YES YES	NO NO NO NO NO
COMMON HARDWARE FE009 DTRM MK104										
FY97 MOD 2/3 FY98 MOD 2/3 FY99 MOD 2/3 FE003 SAFETY & ARMING DEVICE	127 100 108	53.3 52.4 58.4	NAVSEA NAVSEA NAVSEA		SS/FFP/PI SS/FFP/PI SS/FFP/PI	ARC-Camden,AR ARC-Camden,AR ARC-Camden,AR	05/97 03/98 03/99	12/98 10/99 10/00	YES YES YES	NO NO NO
FY97 MK 54 FY98 MK 54 FY99 MK54 D. REMARKS	127 100 108	9.1 8.4 8.4	NAVSEA NAVSEA NAVSEA		SS/FFP SS/FFP SS/FFP	KAMAN - Middletown,CT KAMAN - Middletown,CT KAMAN - Middletown,CT	05/97 03/98 03/99	12/98 10/99 10/00	YES YES YES	NO NO NO

DD Form 2446-1, JUL 87 P-1 SHOPPING LIST

PAGE NO.

3

ITEM NO. 8

BUDGET PROCUREM	ENT HISTO	RY AND PL	ANNING EXHIBIT (P-	5A)		Weapon System		A. DATE	998	
B. APPROPRIATION/BUDGET		•		C.	P-1 ITEM NOMENCL	L ATURE		DIVOAICT	SUBHEAD	
Weapons Procuremen	t, Navy/BA	<b>2</b>			STA	NDARD MISSILE (SM2 M	R/ER)		12FE	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF YES WHEN AVAILABLE
COMMON HARDWARE(cont) FE005 ORDNANCE MK45 TDD		(888)								
FY97 MOD 9/10 FY98 MOD 9/10 FY99 MOD 9/10	127 100 108	48.3 44.9 51.9	NAVSEA NAVSEA NAVSEA		SS/FFP/PI SS/FFP/PI SS/FFP/PI	MOTOROLA,Scottsdale,AZ MOTOROLA,Scottsdale,AZ MOTOROLA,Scottsdale,AZ	06/97 06/98 06/99	10/98 10/99 10/00	YES YES YES	NO NO NO
FE006 WARHEAD										
FY97 MK125 FY98 MK 125 FY99 MK 125	127 100 108	20.8 19.2 19.1	NAVSEA NAVSEA NAVSEA		SS/FFP SS/FFP SS/FFP	HERCULES - Magna,UT HERCULES - Magna,UT HERCULES - Magna,UT	04/97 04/98 04/99	10/98 10/99 10/00	YES YES YES	NO NO NO
D. REMARKS										

DD Form 2446-1, JUL 87 P-1 SHOPPING LIST

ITEM NO. 8

FY 1998/99 BUDGET PRODU	CTION	SCHE	DULE	E, P-2	1													DATE	Ī.			Janu	ary	199	8					
APPROPRIATION/BUDGET AV Weapons Procurement,	_	,											We	apor	n Sy:	sten	1	P-1	ITEN			NCL ARD			E					
						Pro	duct	ion l	Rate	(NO	TE 1)				Pr	ocur	eme	nt L	eadti	imes	3			Ì						
			nufactu							Ì			TP			TA			Initia			Reord							it of	
Item			and L		n		SR		8-5		AX	to	ОС	t 1	(	Oct	1	M	lfg Pl	_T_	N	lfg Pl	LT		Tota	al	<u> </u>	Mea	asur	<u> </u>
NOTE 2.			CSON				9	10		20									24			24								
NOTE 2.			N/BRI		, TN	Ç		4		8									24			24								
	SMC	o/McL	EAN,	VA		1	0	10	00	18	30								24			24								
												FISC	AL YE	AR 1	998															
ITEM / MANUFACTURER	F	S	Q	D	В		1996							NDAF	RYEA	R 199	97						CAI	LEND	AR YE	AR 19	998			ĺ
	Y	V C	T Y	E L	A L	0 C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L
HMSC	1994		101	74	27	9	9	9				-	<u>'</u>	'	<u> </u>		'	<u> </u>					11	- 1	i i	"	┢∸	⊢	<u>'</u>	
HMSC (FMS)	1994		43	0	43			_	5	5	5	5	5	5	6	7														
HMSC (SM-1 FMS)	1994		20	0	20				4	4	4	4	4																	
RAYCO	1994		101	81	20	9	9	2																						
RAYCO (FMS)	1994		44	0	44				4	4	4	4	4	4	3	3	3	3	4	4										
SMCo	1995		188	0	188											13	13	16	16	17	17	17	17	16	16	15	15			
SMCo (FMS)	1995		108	0	108																							14	14	80
SMCo	1996		22	0	22																		3	3	4	4	3	3	2	
SMCo	1997		127	0	127							Α	BLK	IIIB/I	IV															127
SMCo	1998		100	0	100																Α	BLK I	IIB/I\	Ī						100
										FISC	CAL Y	EAR	1999								_	FISC	AL YE	EAR 2	2000					
ITEM / MANUFACTURER	F	S	Q	D	В		1998						CALE	NDAF	YEA	R 19	99	_					CA	LEND	AR YE	AR 20	000			
	Υ	V	Т	Е	Α	0	N	D	J	F	М	Α	М	J	J	Α	S	0	N	D	J	F	М	Α	М	J	J	A	s	B A
		С	Υ	L	L	C T	0 V	E C	A N	E B	A R	P R	A	U	U L	U G	E P	C T	0 V	E	A N	E B	A R	P R	A Y	U N	U L	U G	E P	Ĺ
SMCo(FMS)	1995		108	28	80	14			13			7												t			一	$\vdash$		一
SMCo	1996		22	22																										
SMCo	1997		127	0	127							14	14	14	14	14	14	14	14	15										
SMCo(FMS)	1997		38	0	38									6	6	6	5	5	5	5										1
SMCo	1998		100	0	100																8	8	8	8	8	8	8	8	9	27
SMCo(FMS)	1998		5	0	5																1	1	1	1	1					
SMCo	1999		108	0	108				Α	BLK	IIIB	Α	BLK	(IV														-		108

Remarks

Notes: (1) MIN RATES ESTABLISHED AT COMPONENT LEVEL (MK 104 DTRM) - MIN RATE MET WITH ADDITION OF INITIAL SPARES

(2) Pre FY95 Production Only

DD Form 2445, JUL 87

P-1 SHOPPING LIST

311/244 ITEM NO 8 PAGE 5

FY 1998/99 BUDGET PRODU	CTION	SCHE	EDULF	Ξ, P-2 <sup>,</sup>	1													DATE	Ε			Janu	Jary	1998	8					
APPROPRIATION/BUDGET A	CTIVITY	/		Weapon S						า Sy:	sten	n	P-1	ITEN	N NC	OME	NCL	JΤΑ	JRE											
Weapons Procurement,	Navy																			ST	AND	ARD	) MI	SSIL	Ε					
-							Pro	duct	tion I	Rate	<del></del>				Pr	ocur	eme	ent L	eadti	mes	,									
		Mar	nufactu	rer's								Αl	T P	rior	AL	TA	fter		Initia	al	R	Reord	ler	1				Un	it of	
Item	1	Name	and L	ocatic	n	MS	SR	1-8	8-5	M	AX	tc	ОС	t 1	(	Oct	1	N	/lfg Pl	LT	М	lfg Pl	LT		Tota	d		Mea	asure	Э
	HMS	C/TU	CSON,	, AZ		9	)	10	)0	20	00								24			24								
			N/BRI		., TN	9		40	-	8	-								24			24								
	SMC	o/McL	EAN,	VA		10	0	10	)0	18	30								24			24								
						<u> </u>		<u> </u>		<u> </u>		<u> </u>															L			
			FISCAL YEAR 2001										$\vdash$			$\vdash$			₩			$\vdash$								
			Q D B 2000 CALENDAR YEAR T E A O N D J F M A M J J J															FISC.	AL YE	EAR 2	2002									
ITEM / MANUFACTURER	F	S	S Q D B 2000 CALENDAR YEAR V T E A O N D J F M A M J J									AR 20	01	•						LEND		:AR 20	002							
	Υ		Q         D         B         2000         CALENDAR YEAR           T         E         A         O         N         D         J         F         M         A         M         J         J         J         Y         L         L         C         O         E         A         E         A         P         A         U         U         U         U         T         V         C         N         B         R         R         Y         N         L									Α	S	0	N	D	J	F	М	Α	М	J	J	Α	S	В				
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SMCo	1998				27	9	9									Ĭ				Ť										
SMCo(FMS)	1998		100     73     27     9     9     9       5     5     0     0     0																											
SMCo SMCo(FMS)	1999 1999	<b></b>	100     73     27     9     9     9       5     5     0     0     0     0     0       108     0     108     0     9     9     9     9     9     9     9     9						9	9	9	9	-	<u> </u>	-		<del> </del>		<b>!</b>	ļ		<b>.</b>								
SMC0(FMS)	1999		S Q D B 2000 CALENDAR YEAR V T E A O N D J F M A M J J C Y L L C O E A E A P A U U T V C N B R R Y N L  100 73 27 9 9 9 9 5 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0							3	3	3	- 3	3					-		<u> </u>									
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										FISC	CAL Y	EAR	2003									FISC	AL YE	AR 2	004					
ITEM / MANUFACTURER	F	S	Q	D	В		2002		<u> </u>						R YEA						<u> </u>			LEND		:AR 20				В
	Υ	V C	T Y	E L	A L	O C	N O	D E C	J A N	F E	M A	A P R	M A	J	J	A U	S E P	O C T	N O	D E C	J A	F	M A	A P	M A	Ŋ	J	A U	S E	Α
	-					Т	V	С	N	В	R	R	Y	N	L	G	P	T	V	<u> </u>	N	В	R	R	Υ	N	L	G	Р	L
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Remarks:																														

CLASSIFICATION: UNCLASSIFED UNCLASSIFIED

			BUDGET ITE	EM JUSTIFI P-40	CATION SI	HEET					DATE: Februa	ry 1998
APPROPRIATION/BUDG Weapons Procurem	-	<b>A-2</b>					P-1 ITEM NO			2242 RFRAME N	MISSILE (RA	ιM)
Program Element for Co	de B Items: 060	4755N				Other Relate	d Program Ele	ements				
	Prior Years	ID Code		FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Program
QUANTITY	N/A	В		135	100	100	90	90	145	125		
COST (\$M)	N/A			\$46.9	\$41.0	\$44.8	\$46.4	\$45.3	\$78.4	\$74.1		
Initial Spares (\$M)	N/A			\$1.2	\$1.3	\$2.3	\$1.7	\$2.0	\$3.2	\$3.4		
Total (\$M)	N/A			\$48.1	\$42.3	\$47.1	\$48.1	\$47.3	\$81.6	\$77.5		
Unit Cost (\$M)	N/A			\$0.4	\$0.4	\$0.5	\$0.5	\$0.5	\$0.6	\$0.6		

#### ITEM DESCRIPTION/JUSTIFICATION:

Rolling Airframe Missile (RAM) is a high fire-power, low cost, lightweight complementary self-defense system to engage anti-ship missiles. It has dual-mode passive Radio Frequency/Infrared (RF/IR) guidance and will be fired from a RAM Guided Missile Launching System (MK-49) which holds 21 RAM rounds. Approval for full rate production, Milestone III was granted on 6 May 1993.

FY97 funds will procure 135 Block 0 Missiles.

FY98 funds will procure 60 Block 0 and 40 Block 1 Missiles.

FY99 funds will procure 100 Block 1 Missiles.

#### **COOPERATIVE AGREEMENTS:**

RAM is a NATO cooperative project with the Federal Republic of Germany. The RAM production MOU, approved and signed by the US and Germany (GE) on 3 August 1987, specifies production procedures for the Guided Missile Round Pack and coproduction of the Guided Missile Launching System. Missile limited production contracts were awarded to US (General Dynamics/Air Defense Systems Division) and German (RAM System GmbH) sources in 1989. As a result of the reduced US missile quantities and a desire to maintain production capabilities in both countries, an arrangement between the US and German producers, for single source coproduction of the German full-rate production quantities, was approved by both governments in November 1992 and this arrangement continues for U.S. rate production. In August 1992, the acquisition of General Dynamics by Hughes Aircraft Company was approved, making Hughes Missile Systems Co., the US prime contractor. In January 1998, Raytheon acquired Hughes Missile Systems Co., making Raytheon the US prime contractor.

P-1 SHOPPING LIST CLASSIFICATION:

ITEM NO 9 PAGE NO 1

# WEAPONS PROCUREMENT, NAVY FY 1998/99 DEPARTMENT OF THE NAVY BUDGET MISSILE COST ANALYSIS EXHIBIT P-5 (Dollars in Thousands)

Missile Nomenclature & Popular Name: ROLLING AIRFRAME MISSILE (RAM)

February 1998

•	•			,	•						•
Cost Elements 224200		Prior Years Total Cost	FY 1997 Quantity	Quantity Unit Cost	Total Cost	FY 1998 Quantity	Quantity Unit Cost	Total Cost	FY 1999 Quantity	Quantity Unit Cost	Total Cost
== .=00											
Missile Hardware											
G&CA(INCLUDING I&A) EF	001		135	266.7	36,000	60	292.1	17,526			
BLOCK 1 EFG			100	200.7	00,000	40	350.0	14,000	100	357.8	35,780
COMPONENT IMPROV EF					743	.0	000.0	597	100	001.0	508
PROPULSION EFO			135	7.4	1,001	100	8.1	810.0	100	8.3	
ORDNANCE PACK (TD) EF			135	22.3	3,010	100	33.5	3,350	100	33.5	3,350
` ,	006				-,	100	2.6	255	100	2.8	280
SAFE & ARM DEVICE EFO			82	1.8	150	100	2.5	250	100	2.9	290
TELEMETER for BLK 0 EFG											
TELEMETER for BLK 1 EFG	010										
Total Hardware					40,904			36,788			41,038
Procurement Support					,			•			•
CONTRACTOR ENGIN EF	830				336			926			639
GOVT IN-HOUSE ENGINEFS	830				3,201			2,500			2,553
PRODUCTION ACCEPT EF	860				703			785			536
Total Procurement Suppo	ort				4,240			4,211			3,728
Non-recurring Proc Supt											
TOOLS & TEST EQUIP EFS	950				1,714			0			0
Total Flyaway Cost			135	347.1	46,858	100	410.0	40,999	100	447.7	44,766
Fleet Support											
ILS EF9								0			0
CONTAINER EFS	957										
Total Fleet Support											0
Weapon System Cost					46,858			40,999			44,766
Modifications											
Initial Spares					1,155			2,181			2,250
пппа орагоз					1,133			2,101			2,230
T. I.B. O. :					40.015			40.465			47.040
Total Program Cost					48,013			43,180			47,016

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CLASSIFICATION: UNCLASSIFIED

<b>BUDGET PROCUREM</b>	ENT HIST	ORY AND	PLANNING EXHIBI	T (P-5A)		Weapon System		A. DATE		
									Februa	ry 1998
B. APPROPRIATION/BUDGET	ACTIVITY				C. P-1 ITEM NOW	IENCLATURE			SUBHEAD 12E	F
Weapons Procuremen	nt, Navy/B	A-2								
						RAM MISSILE				
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
EF001 GUIDANCE & CONTROL ASSEMBLY FY1997	405				00/55		40/00*	10/00	V50	
BLOCK 0 MISSILES FY 1998	135	266.7	NAVSEA		SS/FP	HMSC, TUCSON, AZ	10/96*	10/98	YES	
BLOCK 0 MISSILES	60	292.1	NAVSEA	5/97	SS/FP	HMSC, TUCSON, AZ	1/98	10/99	YES	
BLOCK 1 MISSILES	40	350.0	NAVSEA	6/97	SS/CPIF	HMSC, TUCSON, AZ	1/98	10/99	YES	
FY 1999										
BLOCK 1 MISSILES	100	357.8	NAVSEA	5/98	SS/FP	RAYTHEON, TUCSON, AZ	1/99	10/00	YES	
EF002 PROPULSION ROCKET MOTOR MK112/1 W/ARMING & FIRING DEVICE MK 298/1										
FY 1997	135	7.4	NAVAIR	SS/FP	C/FP	ATLANTIC RESEARCH	11/97**	5/99	YES	
FY 1998	100	8.1	NAVAIR	7/97	C/FP	ATLANTIC RESEARCH	11/97	7/99	YES	
FY 1999	100	8.3	NAVAIR	7/98	OPTION	COMPETITIVE	2/99	8/00	YES	
EF005										
ORDANCE PACKAGE										
TARGET DETECTOR/MK20										
MOD 2	405	00.0			00/00/5		10/05	0/00	\/F0	
FY 1997	135	22.3	NAVSEA	0/07	SS/CPIF	HMSC, TUCSON, AZ	12/96	2/98	YES	
FY 1998	100	33.5	NAVSEA	6/97	SS/FPI	HMSC, TUCSON, AZ	11/97	1/99	YES	
FY 1999	100	33.5	NAVSEA	6/98	SS/FP	RAYTHEON, TUCSON	11/98	1/00	YES	

D. REMARKS

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<sup>\*</sup>FY97 contract awarded late due to vendor requalification. \*\*FY98 Rocket Motors will deliver immediately after FY97 Rocket Motors.

DD Form 2446-1, JUL 87

**UNCLASSIFIED** CLASSIFICATION:

<b>BUDGET PROCURE</b>	MENT HIST	ORY AND	<b>PLANNING EXHIBI</b>	T (P-5A)		Weapon System		A. DATE		
									February 19	98
B. APPROPRIATION/BUDGE	T ACTIVITY				C. P-1 ITEM NO	MENCLATURE			SUBHEAD 12	F
Weapons Procureme	ent, Navy/B	A-2								
						RAM MISSILE				
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
EF004										
SAFE & ARM MK 13/2 FY 1997 FY 1998 FY 1999 <b>EF006</b> WARHEAD WDU 17/8 FY 1998 FY 1999 FY 1999	82 100 100 100	1.8 2.5 2.9 2.6 2.8	NAVAIR NAVAIR NAVAIR NAVAIR NAVAIR	7/97 7/98 7/97 7/98	C/FP C/FP C/FP	RAYMOND ENGIN COMPETITIVE OPTION  COMPETITIVE OPTION	7/97 5/98 11/98 5/98 11/99	7/97* 5/99 11/99 5/99 11/00	YES YES YES YES YES	
D. REMARKS	* FY97 S	afe and Ai	m Devices delivered	at time of contract	award from cor	ntractor's inventory.				

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ITEM NO. 9 P-1 SHOPPING LIST

FY 1998/99 BUDGET PRODU			EDULI	Ξ, P-2 <sup>-</sup>	1													DATE	Ē		F	ebr	uary	199	98					
APPROPRIATION/BUDGET A Weapons Procurement,		′												apor <b>RAN</b>	Sys <b>1</b>	sten	า	P-1	ITE!							SILE	-RII	M 11	6/	
-							Pro	ducti	ion F	Rate					Pro	cur	eme	nt Le	eadtir	nes										
Item	ı		nufacti and L		n	MS	SR	1-8	8-5	M	4Χ		T Pi Oct	rior : 1		T A Oct			Initia fg Pl			eord fg P			Tota	al		Un Mea	it of	
5" Rolling Airframe Missile			ssile S n, AZ	System	ns,	8		75					0			3			21			21			21					
																												<u> </u>		
ITEM / MANUFACTURER	F	S	Q	D	В	4	996		FIS	SCAL '	YEAR			ND A B	YEAI	D 100	77					FISC	CAL Y			EAR 1	000			
HEW/ WANGFACTURER	Y	V C	T Y	E L	A L	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J D	A U G	S E P	B A L
5" Rolling Airframe Missile/HMSC 5" Rolling Airframe Missile/HMSC 5" Rolling Airframe Missile/HMSC 5" Rolling Airframe Missile/HMSC 5" Rolling Airframe Missile/HMSC	95 96 97 98 99		240 210 135 100 100	0 0 0 0	240 210 135 100 100	20 A	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20 A	20	20	15	15	15	15	15	15	0 0 135 100 100
										FISC	AL VE	AR 1	000									FISC	AL Y	EAD	2000					
ITEM / MANUFACTURER	F	s	Q	D	В	1	998			FISC	AL IL			NDAR	YEAI	R 199	99					risc				EAR 2	2000			
	Y	V	T Y	E L	A L	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J	J U L	A U G	S E P	B A L
5" Rolling Airframe Missile/HMSC 5" Rolling Airframe Missile/HMSC 5" Rolling Airframe Missile/HMSC	97 98 99		135 100 100		135 100 100	11	11	11	11	11	11	11	11	11	12	12	12	8	8	9	8	8	9	8	8	9	8	8	9	100
Remarks:																														
itomano.																														

DD Form 2445, JUL 87 Previous editions are obsolete P-1 SHOPPING LIST

311/244 ITEM NO 9 PAGE 5 Exhibit P-21 Production Schedule

FY 1998/99 BUDGET PRODUC	COUNTS	SCHE	DULF	<u>:, P-2</u> ′	1													DATE				Febr			<del>)</del> 8					
APPROPRIATION/BUDGET AC Weapons Procurement, N	TIVITY	/										,	Wea	apon <b>RA</b> l		stem	1		ITEN OLL		OME	NCL	ATÚ.	JRE		RI	M 1	16/		
•							Pro	ducti	on F	₹ate					Pro	ocur	eme	nt L	.eadti	mes										
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5" Rolling Airframe Missile/HMSC	99	N	100	0	100	8	8	9	8	8	9	8	8	9	8	8	9		-				-		<del> </del>	-	ļ	-	$\vdash$	
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ITEM / MANUFACTURER	F Y	S	Q T	D	В		2002					(		NDAR	YEA	R 200	7	T	Т			7	T	T	AR YE	AR 20	04			
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 DD Form 2445, JUL 87
 Previous editions are obsolete
 P-1 SHOPPING LIST

 311/244
 ITEM NO 9 PAGE 6

#### **CLASSIFICATION:**

## **UNCLASSIFIED**

		BUD	<b>GET ITEM</b>	<b>JUSTIFIC</b>	ATION SH	EET				DATE:	
				P-40						Februa	ry 1998
APPROPRIATION/BUDGE						P-1 ITEM NO					
Weapons Procureme	ent, Navy/2	: - Other Mi	issiles				HELLFIRE	E AGM-114	K PEO(T)		
	Prior	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	То	Total
	Years									Complete	Program
QUANTITY	9,581										
COST (\$M)	\$391.0	\$0.0	\$0.0	\$19.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$410.5
Initial Spares (\$M)	\$4.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$4.4
Total (\$M)	\$395.4	\$0.0	\$0.0	\$19.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$414.9
Unit Cost (\$M)	0.041	0	0		0	0	0	0	0	0	

The Hellfire II (AGM-114K) is a laser guided missile that can be employed from land or carrier based helicopters. The AGM-114 was developed by the Army as executive service to be used as it's primary anti-armor missile for the advanced attack helicopter (AAH-64). The AGM-114K gives the USMC AH-1W helicopter the ability to penetrate modern armor with minimum exposure of the launching platform to enemy counterfire. Approval for Full Rate Production was granted in March 1986. The Hellfire II contains an electro-optical countermeasure (EOCM) seeker to defend against optical countermeasures. The missile contains a new digital autopilot and an electronic fuze for the robust warhead.

Quantities Summary	<u>FY97</u>	<u>FY98</u>	<u>FY99</u>
Army Navy	1800 0	368 232	0
TOTAL (USN/USA)	0	600	0

P-1 SHOPPING LIST

ITEM NO 10 PAGE NO 1

**CLASSIFICATION:** 

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DD Form 2454, JUN 86

# WEAPONS PROCUREMENT, NAV) FY 1999 PRESIDENT'S BUDGET MISSILE COST ANALYSIS EXHIBIT P-5 (Dollars in Millions)

Missile Nomenclature & Popular Name AGM-114K (HELLFIRE II)

	FY 1996	Quantity		FY 1997	Quantity		FY 1998	Quantity		FY 1999	Quantity	
Cost Elements	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
Missile Hardware GC&A/Motor							232	0.040	9.280			0.000
Warhead							132	0.040	1.980			0.000
SAD							132	0.013	0.396			0.000
Total Hardware	0.000		0.000	0.000		0.000		0.058	11.656	0.000		0.000
Recurring Production Suppor												
Govt In-House									3.000			0.000
Govt Test Program									2.625			0.000
Contractor SE/PM									0.040			0.000
Total Recurring Prod Suppor	0.000		0.000			0.000			5.665	0.000		0.000
RECURRING FLYAWAY	0.000	0.000	0.000	0.000	0.000	0.000	232	0.075	17.321	0.000	0.000	0.000
Non-Recurring Costs												
Acceptance Test Equipmen						0.000	0	0.000	0.000	0.000	0.000	0.000
Containers						0.000	0	0.000	0.600	0.000	0.000	0.000
Second Source						0.000	0	0.000	0.000	0.000	0.000	0.000
Product Improvement						0.000	0	0.000	0.000	0.000	0.000	0.000
Total Non-Recurring Costs	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.600	0.000	0.000	0.000
TOTAL MISSILE FLYAWAY	0.000	0.000	0.000	0.000	0.000	0.000	232	0.077	17.921	0.000	0.000	0.000
Fleet Support												
Test Equipment					0.000	0.000	0	0.000	0.000	0.000	0.000	0.000
Handling Equipmen					0.000	0.000	0	0.000	0.000	0.000	0.000	0.000
Training Equipmen					0.000	0.000	0	0.000	0.000	0.000	0.000	0.000
Data & Pubs					0.000	0.000	0	0.000	0.000	0.000	0.000	0.000
Integrated Logistics Suppor	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	1.600	0.000	0.000	0.000
Total Fleet Suppor	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	1.600	0.000	0.000	0.000
Weapon System Cost	0.000	0.000	0.000	0.000	0.000	0.000	232	0.084	19.521	0.000	0.000	0.000
Modifications			0.000			0.000	0	0.000	0.000	0.000	0.000	0.000
Initial Spares			0.000			0.000	0	0.000	0.000	0.000	0.000	0.000
Total Program Cos	0.000	0.000	0.000	0.000	0.000	0.000	232	0.084	19.521	0.000	0.000	0.000

P-1 SHOPPING LIST ITEM NO 10 PAGE NO 2

CLASSIFICATION UNCLASSIFIED

Date: February 1998

DD Form 2454, JUN 86

	BUDGET PROCURE	MENT HISTOR	Y AND PLANI			-			A. DATE Febru	ary 1998
B. APPROPRIATION/BUD Weapons Procure	ment, Navy/2 - Other Mi			C. P-1 ITE	M NOMENCE HELLFIF AGM-114	REII		SUBHEAD		2F6
Cost Element/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST (000)	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES WHEN AVAILABLE
HELLFIRE II										
FY 1994	MARTIN MARIETTA Orlando, FL	MIPR/OPTION	U.S. Army	1/94	1/96	1,931	34.5	YES	NO	
FY 1998	LOCKHEED MARTIN, Hellfire Systems Limited Liability Company (HSLLC)	MIPR/FFP	U.S. Army	6/98	5/00	232	58.0	YES	NO	
D. REMARKS										

DD Form 2446-1, JUL 87 ITEM NO. 10 PAGE NO. 3 CLASSIFICATION:

FY 1998/99 BUDGET PROD	UCTI	ON S	CHEDUI	LE	P-1 I	EM NO	OMEN	CLAT	JRE											DAT	E		F	ebru	ıary	199	8		
					HELLFIRE II AGM-114K PEO(T) FISCAL YEAR 1996																								
ITEM / MANUFACTURER/			ACCEP.	BAL.					FISC/	AL YE	AR 1	996									FIS	CAL \	YEAR	1997					
PROCUREMENT YEAR	S	PROC.	PRIOR	DUE		1995					(	CALE	NDAR	YEA	R 199	96						CA	LENE	AR Y	EAR 1	1997			L
	Е	QTY	TO 1	AS	0	N	D	J	F	М	Α	М	J	J	Α	S	0	N	D	J	F	М	Α	М	J	J	Α	S	A
	R V		ОСТ	OF 1 OCT	C T	0 V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	E P	C T	O V	E C	A N	E B	A R	P R	A Y	U N	UL	U G	E P	T E R
FY 1998																													
LOCKHEED MARTIN, HELLFIRE SYSTEMS LIMITED LIABLITITY CO. (HSLLC)	N	232	0	232																									232
LOCKHEED MARTIN, HSLLC	Α	368	0	368																									368
TOTAL		600	0	600			_									•									•		•	_	600
TOTAL	0	600	0	600	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	M	<b>0</b>	<b>0</b>	<b>0</b>	S	0	N	<b>0</b>	<b>0</b>	F	М	Α	0 M	<b>0</b>	<b>0</b>	Α	<b>0</b>	600
					C T	0 V	E	A N	E B	A R	P R	A	U N	U	U	E	C	O V	E	A N	E B	A	P R	A	U N	U	U	E P	
		DUCTIO	N RATES	RCH'D							PR	OCU	REME	NT L	EAD T	IME				-			REM	IARK	3				
MANUFACTURER'S NAME AND LOCATION	MINIMU M SUST.	1-8-5	MAXIMUM	D +								AD	MIN	LEAD	TIME			MANU	J-		TOTA	L							
LOCKHEED MARTIN,												PRIO	R		AFTEI	R	FA	CTUR	ING		AFTE	R							
												1 OC	Т		1 OC	Τ		TIME			1 OC	Т	1						
DELUTH, GA																													
HELLFIRE SYS, LIMITED LIABILITY	104	250	525	18	INITIA	L						10			8			24			32								
COMPANY (HSLLC) ORLANDO, FL					REOP	DER (Pr	evious '	Source)				3			5			23			28								
ORLANDO, FL						(1-1		_04100)				v								1			1						

DD Form 2445, JUL 87

311 / 244

Previous editions are obsolete

P-1 SHOPPING LIST

ITEM NO 10 PAGE 4 Exhibit P-21 Production Schedule

FY 1998/99 BUDG	ET	PR	OD	UC	CTIC	ON	SC	HE	DU	JLE			P-1	ITEM	NOM	ENCL	ATUI	RE										DATE									
															HE	ELLF	FIR	EΙΙ	Α	ιGΜ	-11	K F	PEC	)(T)					Feb	ruary	y 1998	3					
					FISC	AL Y	EAR	1998	8								FIS	CAL	YEA	R 19	99									FISC	AL YE	AR 200	)				Т
ITEM/MANUFACTURER/		1997					CA	ALEN	IDAR	YEA	AR 1	998				Ī			C	CALE	NDAR	YEA	R 19	999							CALEN	IDAR Y	EAR 20	000			 L
PROCUREMENT YEAR	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J		S E P	O C T	N O V		J A N	F E B	Α	Р	Α			A U G	S E P	O C T	N O V	D E C	JAN	F E B	M A R	A P R	M A Y	N U	JUL	A U G	S E P	A T E R
FY 1998																																					
LOCKHEED MARTIN HELLFIRE SYSTEMS LIMITED LIABLITITY CO. (HSLLC)									A																							116	116				
LOCKHEED MARTIN, HSLLC									Α																							184	184				
																															***************************************						
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	300	0	0	0	0
	O C T	N O V	D E C	J A N	F E B	M A R		M A Y	J	J	A U G	S E P	0 C T				F E B		Ρ	Α		J J	A U G	S E P	O C T	N O V	DEC	J A N	F E B	M A R	A P R	M A Y	J J	J	A U G	S E P	

DD Form 2445, JUL 87 Previous editions are obsolete P-1 SHOPPING LIST ITEM NO 10 PAGE NO. 5 Page of Pages 311/244 4-70 Exhibit P-21 Production Schedule

#### CLASSIFICATION:

## **UNCLASSIFIED**

			BUDGE	T ITEM JU F	STIFICATION -40	ON SHEET					DATE: Februa	ry 1998
APPROPRIATION/BU	JDGET ACTIV	ITY					P-1 ITEM NO	OMENCLATU	IRE			
Weapons Procur	ement, Nav	y					PE	NGUIN (J2	GS) PEO(	CU)		
BA2 - Other Miss	iles											
	1994 & Prior	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	То	Total
	Years										Complete	Program
QUANTITY	101	0	0	0	0	0	0	0	0	0	0	101
	\$158.2	\$0.0	\$0.0	\$6.9	\$7.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$172.4
Initial Spares (\$M)	\$6.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6.4
Total (\$M)	\$164.6	\$0.0	\$0.0	\$6.9	\$7.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$178.8
Unit Cost (\$M)	\$1.630	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.770

The Penguin missile system is an Anti-Ship Missile, manufactured in Norway by Kongsberg Aerospace. The missile, designated the AGM-119B, is launched from the SH-60B LAMPS MK III helicopter operating from U.S. Navy ships. The Penguin missile is a short-to-medium range, rolling airframe, inertially guided missile with passive infrared terminal homing. The Naval Air Systems Command, PMA-258, provides total life cycle support for the Penguin missile to meet customer requirements and to support fleet operations. The planned number of Penguin capable helos and ships is 188 and 64, respectively. The last Penguin AUR missile buy for the Navy was FY 1992.

Funding provided in FY 1997 allowed for the procurement of six Penguin training missiles through Kongsberg Aerospace, with a contract award date of June 1997. These units will be delivered in APR 99 and will allow pilots to maintain proficiency in the use of this weapon.

FY98 funding will be used to buy components for the Missile Launch Assembly(MLA), the interface between the SH-60B Helo and the Penguin Missile. MLA Components are the prime missions degraders and are essential to maintain the viability of the Penguin program. 45 missile simulators used in Weapons Loading evolutions and tactical missile components will also be procured.

No Navy procurement is planned in FY 1999 and out.

P-1 SHOPPING LIST

ITEM NO 11

PAGE NO 1

CLASSIFICATION:

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DD Form 2454, JUN 86

# WEAPONS PROCUREMENT, NAVY FY 1998/99 DEPARTMENT OF THE NAVY BUDGET MISSILE COST ANALYSIS EXHIBIT P-5 (Dollars in Millions)

Missile Nomenclature & Popular Na	me:			<u> </u>	PENGUIN									Date:	Feb 1998	
Cost Elements	Prior Years Total Cost	FY 1995 Quantity	Quantity Unit Cost	Total Cost	FY 1996 Quantity	Quantity Unit Cost	Total Cost	FY 1997 Quantity	Quantity Unit Cost	Total Cost	FY 1998 Quantity	Quantity Unit Cost	Total Cost	FY 1999 Quantity	Quantity Unit Cost	Total Cost
Missile Hardware  HMB/SYS ENGR/DATA ECO SLAM UNIQUE ENGINE WARHEAD WINGS & FINS Total Hardware																
Procurement Support																
GOVT IN-HOUSE																
Total Procurement Support																
Total Flyaway Cost																
Fleet Support																
TRAINING EQUIPMENT FIELD ACTIVITY SUPPORT ILS SERVICES										6.060 0.792			4.955 2.367			
Total Fleet Support										6.852			7.322			
Weapon System Cost										6.852			7.322			
Modifications Advanced Procurement Various 1/ Initial Spares	8.977 149.235 6.388			0.000			0.000			0.000			0.000			0.000
Total Program Cost	164.600			0.000			0.000			6.852			7.322			0.000

<sup>1/</sup> The amount identified against this cost element reflects total prior year funding associated with cost elements no longer financed in FY95 and beyond.

ITEM NO 11 PAGE NO 2

#### **CLASSIFICATION:**

## **UNCLASSIFIED**

		BU	DGET ITEM	JUSTIFICA	TION SHEE	Т			DATE:			
				P-40						FEBRU <i>A</i>	<b>NRY 1998</b>	
APPROPRIATION/BU	DGET ACTIVI	TY					P-1 ITEM NO	MENCLATURE				
Weapons Procure	ement, Nav	y/BA-2;	OTHER MIS	SSILES			AERIAL TA	RGETS (J2	EM)			
Program Element for 0	Code B Items:						Other Related	Program Elen	nents			
0604258N, 060513	30D, 060436	66N							N/A			
	Prior	ID									То	
	Years	Code	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	Complete	Total
QUANTITY												
COST (In Millions)	\$2390.0	А	\$74.5	\$73.9	\$64.0	\$75.5	\$80.4	\$90.1	\$91.3	\$102.8	Cont.	Cont.

#### PROGRAM COVERAGE:

The Aerial Targets Program provides powered targets, towed targets and necessary Target Auxiliary and Augmentation Systems (TA/AS) equipment for fleet training, and weapons systems test and evaluation. This program is comprised of a series of continuing target production programs.

#### JUSTIFICATION OF BUDGET YEAR REQUIREMENTS:

In Fiscal Year 1999, major efforts include the procurement of the AQM-37C/D high altitude supersonic subscale targets, the BQM-74E subsonic subscale targets, the MA-31 supersonic sea skimming targets, the MQM-8G(EER) Vandal targets (converted TALOS missiles), and Foreign Non-Developmental Item (NDI) supersonic and subsonic targets. TA/AS procurements include target command/control equipment, scoring equipment, location and identification equipment, navigation equipment, electronic countermeasures equipment, and active emitter augmentation equipment. The aerial targets and necessary TA/AS equipment provided from this program supports Navy air-to-air and surface-to-air training and weapons systems DT/OT testing.

P-1 SHOPPING LIST

ITEM NO. 12 PAGE NO. 1

CLASSIFICATION:

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#### CLASSIFICATION: UNCLASSIFIED

				WEAPO	NS SYSTEM C P-5	OST AN	ALYSIS			B. DATE FEBRUAF	RY 1998
APPROPRI/	ATION/BUDGET ACTIVITY					P-1 ITEM	NOMENCLATURE/S	SUBHEAD	•		
WEAPON	NS PROCUREMENT, NAVY/BA-	2 OTHE	R MISSILES			AERIAL	TARGETS/J2EM	1			
COST	ELEMENT OF COST	IDENT	Prior Years		FY 1996		FY 1997		FY 1998		FY 1999
CODE		CODE	Total Cost	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
EM010	BQM-34S	Α	\$217,140	0	\$3,409	0	\$2,386	0	\$0	0	\$0
EM020	AQM-37C/D	Α	\$119,818	70	\$15,226	110	\$20,802	50	\$10,839	35	\$10,024
EM030	BQM SUBSONIC SUBSCALE	Α	\$240,241	149	\$36,663	64	\$30,282	119	\$35,915	135	\$36,461
EM100	TOW TARGETS	Α	\$19,837	0	\$0	0	\$0	0	\$0	0	\$0
EM200	OTHER TARGETS	B (1)	\$94,281	6	\$4,266	9	\$7,797	7	\$5,118	11	\$10,841
EM300	TA/AS	Α	\$124,674		\$14,949		\$12,595		\$12,121		\$18,148
	VARIOUS (2)		\$1,573,998		\$0		\$0		\$0		\$0
	TOTAL		\$2,389,989	225	\$74,513	183	\$73,862	176	\$63,993	181	\$75,474
SPARES	(3)										
	BQM-34S		\$570		\$2,478		<b>Φ</b> Ε.C.O.		ΦO		\$0
			ΨΟΙΟ		\$2,470		\$568		\$0		ΦU
	AQM-37C/D		\$0		\$0		\$508		\$0 \$0		\$0 \$0
	AQM-37C/D BQM SUBSONIC SUBSCALE		· ·		• ,		· ·				
			\$0		\$0		\$0		\$0		\$0 \$210 \$0
	BQM SUBSONIC SUBSCALE		\$0 \$125		\$0 \$0		\$0 \$0		\$0 \$0		\$0 \$210
	BQM SUBSONIC SUBSCALE TOW TARGETS		\$0 \$125 \$0		\$0 \$0 \$0 \$0 \$0		\$0 \$0 \$0 \$0 \$0		\$0 \$0 \$0		\$0 \$210 \$0 \$0 \$212
	BQM SUBSONIC SUBSCALE TOW TARGETS OTHER TARGETS		\$0 \$125 \$0 \$405		\$0 \$0 \$0 \$0		\$0 \$0 \$0 \$0		\$0 \$0 \$0 \$0		\$0 \$210 \$0 \$0
	BQM SUBSONIC SUBSCALE TOW TARGETS OTHER TARGETS TA/AS		\$0 \$125 \$0 \$405 \$156		\$0 \$0 \$0 \$0 \$0		\$0 \$0 \$0 \$0 \$0		\$0 \$0 \$0 \$0 \$298		\$0 \$210 \$0 \$0 \$212
	BQM SUBSONIC SUBSCALE TOW TARGETS OTHER TARGETS TA/AS VARIOUS (2)		\$0 \$125 \$0 \$405 \$156 \$50,331	225	\$0 \$0 \$0 \$0 \$0 \$0 \$0	183	\$0 \$0 \$0 \$0 \$0 \$0	176	\$0 \$0 \$0 \$0 \$298 \$0	181	\$0 \$210 \$0 \$0 \$212 \$0
	BQM SUBSONIC SUBSCALE TOW TARGETS OTHER TARGETS TA/AS VARIOUS (2) TOTAL SPARES		\$0 \$125 \$0 \$405 \$156 \$50,331 \$51,587	225	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$2,478	183	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$568	176	\$0 \$0 \$0 \$0 \$298 \$0 \$298	181	\$0 \$210 \$0 \$0 \$212 \$0 \$422

P-1 SHOPPING LIST

ITEM NO.12 PAGE NO. 2

UNCLASSIFIED

CLASSIFICATION:

(1) See "Other Targets" P-5 for RDT&E and FCT program elements.

(3) Initial spares requirements are displayed for information purposes only and are budgeted in Budget Activity 6, Spare and Repair Parts.

<sup>(2)</sup> The amount identified against this cost element reflects total prior year funding associated with cost elements no longer financed in FY 1995 and beyond.

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)

FEBRUARY 1998

WEAR ON OTOTELLING GOOT ANALTONG EXTERNITY (1 0)											I EDITO/TI		
TARGET SYSTEM: <b>BQM-34S</b>		FISCAL \	/EAR	1996	FISCAL YE	AR	1997	FISCAL Y	'EAR	1998	FISCAL Y	EAR	1999
MANUFACTURER: TELEDYNE RYAN, SAN DIEGO, CA	Prior Yrs		UNIT	TOTAL		UNIT	TOTAL		UNIT	TOTAL		UNIT	TOTAL
COST CODE: EM010 FLYAWAY COST (\$000)	Total Costs	QTY	COST	COST	QTY	COST	COST	QTY	COST	COST	QTY	COST	COST
HARDWARE:													
TARGET	\$178,604	0		\$0	0		\$0	0		\$0	0		\$0
GFM (1)	\$5,699			\$0			\$363			\$0			\$0
TECHNICAL DATA PACKAGE	\$0			\$0			\$0			\$0			\$0
INSTALL/MISSION KITS (2)	\$19,834			\$1,208			\$363			\$0			\$0
TOTAL HARDWARE	\$204,137	0		\$1,208	0		\$726	0		\$0	0		\$0
PROCUREMENT SUPPORT (RECURRING):													
CONTRACTOR ENGINEERING	\$0			\$0			\$0			\$0			\$0
GOVERNMENT IN-HOUSE	\$5,535			\$1,050			\$572			\$0			\$0
DOCUMENTATION	\$1,634			\$198			\$36			\$0			\$0
GOVERNMENT TEST	\$982			\$125			\$443			\$0			\$0
OTHER	\$0			\$0			\$0			\$0			\$0
TOTAL RECURRING	\$8,151			\$1,373			\$1,051			\$0			\$0
PROCUREMENT SUPPORT (NONRECURRING):													
PRODUCT IMPROVEMENT	\$0			\$0			\$0			\$0			\$0
SPECIAL TOOLING AND TEST EQUIPMENT	\$0			\$0			\$0			\$0			\$0
TOTAL NONRECURRING	\$0			\$0			\$0			\$0			\$0
TOTAL FLYAWAY	\$212,288	0	\$0	\$2,581	0	\$0	\$1,777	0	\$0	\$0	0	\$0	\$0
GROUND EQUIPMENT/FLEET SUPPORT COST:													
GROUND EQUIPMENT	\$1,260			\$225			\$275			\$0			\$0
INSTALL & CHECKOUT	\$0			\$0			\$0			\$0			\$0
SPECIAL HANDLING EQUIPMENT	\$0			\$0			\$0			\$0			\$0
FLEET TEST EQUIPMENT	\$0			\$0			\$0			\$0			\$0
TRAINING DEVICES	\$150			\$75			\$114			\$0			\$0
DOCUMENTATION	\$0			\$0			\$0			\$0			\$0
ILS	\$3,442			\$528			\$220			\$0			\$0
TOTAL GRD EQUIP/FLEET SUP COST	\$4,852			\$828			\$609			\$0			\$0
WEAPONS SYSTEM COST	\$217,140	0	\$0	\$3,409	0	\$0	\$2,386	0	\$0	\$0	0	\$0	\$0
TARGETS INITIAL SPARES	\$570			\$2,478			\$568			\$0			\$0
TOTAL PROGRAM COST	\$217,710	0	\$0	\$5,887	0	\$0	\$2,954	0	\$0	\$0	0	\$0	\$0

P-1 SHOPPING LIST

(1) HERO safe cartridge activating devices.(2) Kits for SQUIB's.

ITEM NO.

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WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)

FEBRUARY 1998

TARGET SYSTEM: AQM-37C/D		FISCAL YE	AR	1996	FISCAL YI	EAR	1997	FISCAL Y	EAR	1998	FISCAL Y	EAR	1999
MANUFACTURER: RAYTHEON AIRCRAFT, WICHITA, KS	Prior Yrs		UNIT	TOTAL		UNIT	TOTAL		UNIT	TOTAL		UNIT	TOTAL
COST CODE: EM020 FLYAWAY COST (\$000)	Total Cost	QTY	COST	COST	QTY	COST	COST	QTY	COST	COST	QTY	COST	COST
HARDWARE: (1)													
TARGET	\$78,227	70	\$125	\$8,753	110	\$125	\$13,698	50	\$144	\$7,183	35	\$156	\$5,453
GFM-BATTERIES	\$1,366			\$182			\$295			\$145			\$94
GFM-IRFNA (2)	\$2,822			\$273			\$375			\$221			\$146
INSTALL/MISSION KITS	\$11,164			\$715			\$1,212			\$309			\$685
EXTENDED PERFORMANCE KITS (3)	\$4,252			\$0			\$0			\$374			\$800
TOTAL HARDWARE	\$97,831	70	\$142	\$9,923	110	\$142	\$15,580	50	\$165	\$8,232	35	\$205	\$7,178
PROCUREMENT SUPPORT (RECURRING):													
GOVERNMENT IN-HOUSE	\$5,114			\$2,021			\$2,528			\$1,583			\$1,632
DOCUMENTATION	\$1,680			\$424			\$389			\$182			\$281
GOVERNMENT TEST	\$631			\$206			\$1,157			\$109			\$131
TOTAL RECURRING	\$7,425			\$2,651			\$4,074			\$1,874			\$2,044
PROCUREMENT SUPPORT (NONRECURRING):													
PRODUCT IMPROVEMENT (4), (5)	\$10,836		(4)	\$2,318		(5)	\$497			\$545			\$0
SPECIAL TOOLING AND TEST EQUIPMENT	\$0		•	\$0			\$0			\$0			\$0
TOTAL NONRECURRING	\$10,836			\$2,318			\$497			\$545			\$0
TOTAL FLYAWAY	\$116,092	70	\$213	\$14,892	110	\$183	\$20,151	50	\$213	\$10,651	35	\$263	\$9,222
GROUND EQUIPMENT/FLEET SUPPORT COST:													
GROUND EQUIPMENT	\$0			\$0			\$0			\$0			\$0
INSTALL & CHECKOUT	\$0			\$0			\$0			\$0			\$0
SPECIAL HANDLING EQUIPMENT	\$0			\$0			\$0			\$0			\$0
FLEET TEST EQUIPMENT	\$469			\$0			\$0			\$0			\$0
TRAINING DEVICES	\$110			\$29			\$96			\$20			\$31
DOCUMENTATION	\$242			\$0			\$0			\$0			\$395
ILS	\$2,905			\$305			\$555			\$168			\$376
TOTAL GRD EQUIP/FLEET SUP COST	\$3,726			\$334			\$651			\$188			\$802
WEAPONS SYSTEM COST (6)	\$119,818	70	\$218	\$15,226	110	\$189	\$20,802	50	\$217	\$10,839	35	\$286	\$10,024
TARGETS INITIAL SPARES	\$0			\$0			\$0			\$0			\$0
TOTAL PROGRAM COST	\$119,818	70	\$218	\$15,226	110	\$189	\$20,802	50	\$217	\$10,839	35	\$286	\$10,024

P-1 SHOPPING LIST

(1) Price increase due to Power Supply ECP.

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(2) Inhibited Red Fuming Nitric Acid.

(3) Extended performance kits are required to perform missions at altitudes from 70,000 to 100,000 feet at velocities from Mach 3 to Mach 4. Approximately 20 kits will be procured each year.

- (4) FY 96 non-recurring engineering associated with an avionics upgrade (obsolete components no longer commercially available).
- (5) FY 97 software changes/power supply/valve.

UNCLASSIFIED

(6) Target buy increased at direction of sponsor.

FEBRUARY 1998

TARGET SYSTEM: BQM SUBSONIC SUBSCALE		<b>FISCAL</b>	YEAR	1996	<b>FISCAL</b>	YEAR	1997	<b>FISCAL</b>	YEAR	1998	<b>FISCAL</b>	YEAR	1999
MANUF: NORTHROP-GRUMMAN	Prior Yrs		UNIT	TOTAL		UNIT	TOTAL		UNIT	TOTAL		UNIT	TOTAL
COST CODE: EM030 FLYAWAY COST (\$000)	Total Cost	QTY	COST	COST	QTY	COST	COST	QTY	COST	COST	QTY	COST	COST
HARDWARE:													
TARGET (1)	\$201,630	149	\$223	\$33,222	64	\$242	\$15,620	119	\$238	\$28,317	135	\$222	\$29,905
INSTALL/MISSION KITS (2)	\$19,569			\$1,087			\$12,393			\$5,451			\$4,319
TOTAL HARDWARE	\$221,199	149	\$240	\$34,309	64	\$438	\$28,013	119	\$284	\$33,768	135	\$254	\$34,224
PROCUREMENT SUPPORT (RECURRING):													
GOVERNMENT IN-HOUSE	\$9,213			\$1,445			\$1,396			\$1,216			\$1,558
DOCUMENTATION	\$1,301			\$114			\$120			\$128			\$171
GOVERNMENT TEST	\$843			\$0			\$360			\$232			\$55
TOTAL RECURRING	\$11,357			\$1,559			\$1,876			\$1,576			\$1,784
PROCUREMENT SUPPORT (NONRECURRING):													
PRODUCT IMPROVEMENT (3)	\$0			\$0			\$0			\$0			\$0
SPECIAL TOOLING AND TEST EQUIPMENT	\$0			\$0			\$0			\$0			\$0
5. 25 100E110711D 1201 2011 ME141	Ψ			ΨΟ			ΨΟ			ΨΟ			ΨΟ
TOTAL NONRECURRING	ΨΟ			\$0			\$0			\$0			\$0
	\$232,556	149	\$241		64	\$467		119	\$297		135	\$267	
TOTAL NONRECURRING	·	149	\$241	\$0	64	\$467	\$0	119	\$297	\$0	135	\$267	\$0
TOTAL NONRECURRING TOTAL FLYAWAY	·	149	\$241	\$0	64	\$467	\$0	119	\$297	\$0	135	\$267	\$0
TOTAL NONRECURRING TOTAL FLYAWAY GROUND EQUIPMENT/FLEET SUPPORT COST:	\$232,556	149	\$241	\$0 \$35,868	64	\$467	\$0 \$29,889	119	\$297	\$0 \$35,344	135	\$267	\$0 \$36,008 \$0 \$0
TOTAL NONRECURRING  TOTAL FLYAWAY  GROUND EQUIPMENT/FLEET SUPPORT COST: GROUND EQUIPMENT	<b>\$232,556</b> \$2,975	149	\$241	\$0 \$35,868 \$125	64	\$467	\$0 \$29,889 \$154	119	\$297	\$0 \$35,344 \$280	135	\$267	\$0 \$36,008 \$0 \$0 \$0
TOTAL NONRECURRING  TOTAL FLYAWAY  GROUND EQUIPMENT/FLEET SUPPORT COST: GROUND EQUIPMENT INSTALL & CHECKOUT	\$232,556 \$2,975 \$0	149	\$241	\$0 \$35,868 \$125 \$0	64	\$467	\$0 \$29,889 \$154 \$0	119	\$297	\$35,344 \$280 \$0	135	\$267	\$0 \$36,008 \$0 \$0
TOTAL NONRECURRING  TOTAL FLYAWAY  GROUND EQUIPMENT/FLEET SUPPORT COST:  GROUND EQUIPMENT  INSTALL & CHECKOUT  SPECIAL HANDLING EQUIPMENT	\$232,556 \$2,975 \$0 \$0	149	\$241	\$35,868 \$125 \$0 \$0	64	\$467	\$0 \$29,889 \$154 \$0 \$0	119	\$297	\$35,344 \$280 \$0 \$0	135	\$267	\$0 \$36,008 \$0 \$0 \$0
TOTAL NONRECURRING TOTAL FLYAWAY  GROUND EQUIPMENT/FLEET SUPPORT COST: GROUND EQUIPMENT INSTALL & CHECKOUT SPECIAL HANDLING EQUIPMENT FLEET TEST EQUIPMENT	\$232,556 \$2,975 \$0 \$0 \$0	149	\$241	\$35,868 \$125 \$0 \$0 \$0	64	\$467	\$0 \$29,889 \$154 \$0 \$0 \$0	119	\$297	\$35,344 \$280 \$0 \$0 \$0	135	\$267	\$0 \$36,008 \$0 \$0 \$0 \$0
TOTAL NONRECURRING TOTAL FLYAWAY  GROUND EQUIPMENT/FLEET SUPPORT COST: GROUND EQUIPMENT INSTALL & CHECKOUT SPECIAL HANDLING EQUIPMENT FLEET TEST EQUIPMENT TRAINING DEVICES	\$232,556 \$2,975 \$0 \$0 \$0 \$154	149	\$241	\$125 \$0 \$125 \$0 \$0 \$33	64	\$467	\$0 \$29,889 \$154 \$0 \$0 \$0 \$35	119	\$297	\$35,344 \$280 \$0 \$0 \$0 \$0	135	\$267	\$0 \$36,008 \$0 \$0 \$0 \$0 \$36
TOTAL NONRECURRING  TOTAL FLYAWAY  GROUND EQUIPMENT/FLEET SUPPORT COST: GROUND EQUIPMENT INSTALL & CHECKOUT SPECIAL HANDLING EQUIPMENT FLEET TEST EQUIPMENT TRAINING DEVICES DOCUMENTATION	\$232,556 \$2,975 \$0 \$0 \$0 \$154 \$715	149	\$241	\$125 \$125 \$0 \$0 \$0 \$33 \$283	64	\$467	\$154 \$0 \$0 \$0 \$0 \$0 \$35 \$0	119	\$297	\$35,344 \$280 \$0 \$0 \$0 \$40 \$0	135	\$267	\$0 \$36,008 \$0 \$0 \$0 \$0 \$36 \$0
TOTAL NONRECURRING  TOTAL FLYAWAY  GROUND EQUIPMENT/FLEET SUPPORT COST: GROUND EQUIPMENT INSTALL & CHECKOUT SPECIAL HANDLING EQUIPMENT FLEET TEST EQUIPMENT TRAINING DEVICES DOCUMENTATION ILS	\$2,975 \$0 \$0 \$154 \$715 \$3,841	149	\$241	\$35,868 \$125 \$0 \$0 \$33 \$283 \$354 \$795	64	\$467	\$154 \$0 \$154 \$0 \$0 \$0 \$35 \$0 \$204	119		\$35,344 \$280 \$0 \$0 \$0 \$40 \$251 \$571	135	\$267	\$0 \$36,008 \$0 \$0 \$0 \$36 \$36 \$0 \$417
TOTAL NONRECURRING  TOTAL FLYAWAY  GROUND EQUIPMENT/FLEET SUPPORT COST: GROUND EQUIPMENT INSTALL & CHECKOUT SPECIAL HANDLING EQUIPMENT FLEET TEST EQUIPMENT TRAINING DEVICES DOCUMENTATION ILS  TOTAL GRD EQUIP/FLEET SUP COST	\$232,556 \$2,975 \$0 \$0 \$154 \$715 \$3,841 \$7,685			\$35,868 \$125 \$0 \$0 \$33 \$283 \$354 \$795			\$0 \$29,889 \$154 \$0 \$0 \$35 \$0 \$204 \$393			\$35,344 \$280 \$0 \$0 \$40 \$251 \$571			\$0 \$36,008 \$0 \$0 \$0 \$36 \$36 \$0 \$417 \$453

P-1 SHOPPING LIST

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(1) Includes FY96 contract and additional units procured on FY97 contract

(2) Fiscal Year 1997, includes emergent OSPREY rqmt (\$5,350) and FY 97 Kit buy (\$5,769)

(3) Programmatic decision not to do ECP based on new competition for SSAT.

TARGETS INITIAL SPARES

TOTAL PROGRAM COST

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)											FEBRU	ARY 1998	}
TARGET SYSTEM: TOW TARGETS		<b>FISCAL</b>	YEAR	1996	<b>FISCAL</b>	YEAR	1997	<b>FISCAL</b>	YEAR	1998	<b>FISCAL</b>	YEAR	1999
MANUFACTURER: VARIOUS	Prior Yrs		UNIT	TOTAL		UNIT	TOTAL		UNIT	TOTAL		UNIT	TOTAL
COST CODE: EM100 FLYAWAY COST (\$000)	Total Cost	QTY	COST	COST	QTY	COST	COST	QTY	COST	COST	QTY	COST	COST
HARDWARE:													
TDU-32 BANNER SERIES	\$3,604			\$0			\$0			\$0			\$0
TDU-34	\$1,318			\$0			\$0			\$0			\$0
TA/AS MISSION SETS	\$1,458			\$0			\$0			\$0			\$0
TOTAL HARDWARE	\$6,380			\$0			\$0			\$0			\$0
PROCUREMENT SUPPORT (RECURRING):													
GOVERNMENT IN-HOUSE	\$7,185			\$0			\$0			\$0			\$0
DOCUMENTATION	\$2,007			\$0			\$0			\$0			\$0
GOVERNMENT TEST	\$1,040			\$0			\$0			\$0			\$0 \$0
TOTAL RECURRING	\$10,232			\$0			\$0			\$0			\$0
PROCUREMENT SUPPORT (NONRECURRING):													
PRODUCT IMPROVEMENT	\$0			\$0			\$0			\$0			\$0
TOOLING	\$0			\$0			\$0			\$0			\$0
TEST EQUIPMENT	\$0			\$0			\$0			\$0			\$0
TOTAL NONRECURRING	\$0			\$0			\$0			\$0			\$0
TOTAL FLYAWAY	\$16,612			\$0			\$0			\$0			\$0
GROUND EQUIPMENT/FLEET SUPPORT COST:													
GROUND EQUIPMENT	\$193			\$0			\$0			\$0			\$0
INSTALL & CHECKOUT	\$0			\$0			\$0			\$0			\$0 \$0
SPECIAL HANDLING EQUIPMENT	\$200			\$0			\$0			\$0			\$0
TOOLING	\$0			\$0			\$0			\$0			\$0
TEST EQUIPMENT	\$0			\$0			\$0			\$0			\$0 \$0 \$0 \$0
TRAINING DEVICES	\$251			\$0			\$0			\$0			\$0
DOCUMENTATION	\$0			\$0			\$0			\$0			\$0
ILS	\$2,581			\$0			\$0			\$0			
TOTAL GRD EQUIP/FLEET SUP COST	\$3,225			\$0			\$0			\$0			\$0
WEAPONS SYSTEM COST	\$19,837			\$0			\$0			\$0			\$0

\$0

\$0

\$0

\$19,837

P-1 SHOPPING LIST

\$0

\$0

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UNCLASSIFIED

\$0

\$0

\$0

\$0

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5) FEBRUARY 1998 OTHER TARGETS 1996 FISCAL YEAR TARGET SYSTEM: FISCAL YEAR 1997 FISCAL YEAR 1998 FISCAL YEAR 1999 TOTAL TOTAL MANUF: VARIOUS Prior Yrs UNIT UNIT TOTAL UNIT **TOTAL** UNIT COST CODE: EM200 FLYAWAY COST (\$000) Total Cost | QTY | COST COST QTY COST COST QTY COST COST QTY COST COST HARDWARE: \$64.766 6 \$434 \$2.604 0 \$0 6 \$508 \$3.046 0 \$0 MQM-8G(EER) VANDAL (1) 0 MA-31 (2) \$0 \$0 9 \$849 \$7.643 0 \$0 6 \$397 \$2,382 0 \$0 \$0 0 0 \$0 0 SM-2 TARGET (3) \$0 \$0 0 0 0 \$0 ANTI SHIP CRUISE MISSILE - SUBSONIC (4) \$0 \$0 0 \$0 \$0 0 FOREIGN NDI - SUPERSONIC \$0 \$0 0 \$0 1 \$1,951 \$1.951 2 \$1,491 \$2,982 FOREIGN NDI - SUBSONIC \$0 0 \$0 0 \$0 0 \$0 \$1.491 \$4.473 \$0 **ANCILLARY EQUIP** \$2,107 \$396 \$0 \$0 QF-4N \$6.735 **TOTAL HARDWARE** \$73,608 6 \$500 \$3,000 \$849 \$7,643 7 \$714 \$4,997 11 \$894 \$9,837 PROCUREMENT SUPPORT (RECURRING): **GOVERNMENT IN-HOUSE** \$7,856 \$649 \$0 \$121 \$679 **DOCUMENTATION** \$1,000 \$0 \$0 \$0 \$39 **GOVERNMENT TEST** \$0 \$300 \$0 \$0 \$0 **TOTAL RECURRING** \$8.856 \$0 \$949 \$121 \$718 PROCUREMENT SUPPORT (NONRECURRING): PRODUCT IMPROVEMENT \$3,726 \$0 \$0 \$0 \$0 CONTRACTOR ENGINEERING \$1,435 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 **TOOLING TEST EQUIPMENT** \$0 \$0 \$0 \$0 \$0 TOTAL NONRECURRING \$5.161 \$0 \$0 \$0 \$0 \$10,555 TOTAL FLYAWAY \$87.625 6 \$658 \$3,949 \$7,643 7 \$5,118 11 GROUND EQUIPMENT/FLEET SUPPORT COST: **GROUND EQUIPMENT** \$2,105 \$0 \$0 \$0 \$0 **INSTALL & CHECKOUT** \$0 \$0 \$0 \$0 \$0 SPECIAL HANDLING EQUIPMENT \$0 \$0 \$0 \$0 \$0 **TOOLING** \$0 \$0 \$0 \$0 \$0 **TEST EQUIPMENT** \$630 \$0 \$154 \$0 \$286 TRAINING DEVICES \$0 \$64 \$0 \$0 \$0 DOCUMENTATION \$0 \$0 \$0 \$1,665 \$0 \$0 \$0 ILS \$2,256 \$253 \$0 TOTAL GRD EQUIP/FLEET SUP COST \$6,656 \$317 \$154 \$0 \$286 **WEAPONS SYSTEM COST** \$711 \$94,281 6 \$4,266 9 \$7.797 7 \$5.118 11 \$10,841

\$0

9

\$4,266

P-1 SHOPPING LIST

\$7,797

\$0

(1) MQM-8G(EER) VANDAL Unit Price for FY 98 increase due to the incorporation of both the Inertiatem No. Unit (IMU) and the Global Positioning System (GPS) (A Reliabilitity Improvement)

\$405

6

\$711

\$94,686

(2) MA-31 RDT&E PE 0604258N and FCT PE 0605130D.

- (3) SM-2 Target RDT&E PE 0604258N and PE 0604366N.
- (4) Formerly called the HARPOON Target.

TARGETS INITIAL SPARES

**TOTAL PROGRAM COST** 

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7

\$0

\$5,118

11

\$0

\$10,841

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)

FEBRUARY 1998

WEAFON STSTEM COST ANALTSIS EXHIBIT (F-3)												AIXT 1990	
TARGET SYSTEM: <b>TA/AS</b>		FISCAL			FISCAL			FISCAL			FISCAL		1999
MANUFACTURER: VARIOUS	Prior Yrs	. – I	UNIT	TOTAL	' ]	UNIT	TOTAL		UNIT	TOTAL	-,	UNIT	TOTAL
COST CODE: EM300 FLYAWAY COST (\$000)	Total Cost	QTY	COST	COST	QTY	COST	COST	QTY	COST	COST	QTY	COST	COST
HARDWARE:					<u> </u>								
CDM/CONTROL EQUIPMENT	\$24,707	·1		\$1,632	<u> </u>	' <u> </u>	\$510		<u> </u>	\$0			\$4,306
SCORING EQUIPMENT	\$11,880	 1		\$2,405	<u> </u>	'	\$1,860		<u> </u>	\$2,152			\$2,084
LOCATION/ID EQUIP	\$10,698			\$298	<u> </u>	'	\$294	1	<u>'</u>	\$1,604			\$1,760
ECM/EMITTER EQUIP	\$27,290	<u>_</u>		\$4,550	' <u> </u>	' <u> </u>	\$4,269		<u> </u>	\$3,336		$\coprod$	\$4,644
AUGMENT/NAVIGAT EQUIP	\$6,926	·	<u> </u>	\$305	' <u> </u>	<u> </u>	\$853		' <u> </u>	\$868	<u></u>		\$407
INSTALL/MISSION EQUIP	\$0	 		\$495	'	' <u> </u>	\$508		<u>'</u>	\$519			\$535
MOBILE SEA RANGE	\$12,598			\$270	' <u> </u>	' <u> </u>	\$0		' <u> </u>	\$0		<u> </u>	\$0
TOTAL HARDWARE	\$94,099			\$9,955		'	\$8,294			\$8,479			\$13,736
PROCUREMENT SUPPORT (RECURRING):		I			·	' <u> </u>			' <u> </u>				
GOVERNMENT IN-HOUSE	\$17,228			\$3,034	'	'	\$3,080		<u>'</u>	\$2,558			\$3,154
DOCUMENTATION	\$0	I		\$12	' <u> </u>	'	\$87		'	\$0			\$0
GOVERNMENT TEST	\$0			\$164	'	'	\$112		'	\$0			\$0
TOTAL RECURRING	\$17,228	 I		\$3,210	·	·	\$3,279			\$2,558			\$3,154
PROCUREMENT SUPPORT (NONRECURRING):													
PRODUCT IMPROVEMENT	\$1,300			\$0	·	'	\$0		<u> </u>	\$0			\$0
TOOLING	\$0			\$0	' <u> </u>	'	\$0		'	\$0			\$0
TEST EQUIPMENT	\$0			\$0	'	'	\$0			\$0			\$0
TOTAL NONRECURRING	\$1,300			\$0	·	'	\$0		<u>'                                    </u>	\$0			\$0
TOTAL FLYAWAY	\$112,627	 I		\$13,165			\$11,573			\$11,037			\$16,890
GROUND EQUIPMENT/FLEET SUPPORT COST:													
GROUND EQUIPMENT	\$143			\$345			\$0		<u> </u>	\$0			\$0
INSTALL & CHECKOUT	\$917	 I		\$0			\$0		·	\$0			\$0
SPECIAL HANDLING EQUIPMENT	\$0	I		\$0	'	'	\$0		'	\$0			\$0
TOOLING	\$0			\$0	'	'	\$0		'	\$0			\$0
TEST EQUIPMENT	\$1,557	·		\$445	'	'	\$0		<u>'</u>	\$0			\$0
TRAINING DEVICES	\$336	 		\$68	'	' <u> </u>	\$15		<u>'</u>	\$25			\$25
DOCUMENTATION	\$0	 		\$0	'	' <u> </u>	\$0		<u>'</u>	\$0			\$0
ILS	\$9,094		<u> </u>	\$926	' <u> </u>	' <u> </u>	\$1,007		' <u> </u>	\$1,059		<u> </u>	\$1,233
TOTAL GRD EQUIP/FLEET SUP COST	\$12,047	 		\$1,784	'	'	\$1,022		<u> </u>	\$1,084			\$1,258
WEAPONS SYSTEM COST	\$124,674	 I		\$14,949			\$12,595			\$12,121			\$18,148
TARGETS INITIAL SPARES	\$156			\$0		' <u> </u>	\$0			\$298			\$212
TOTAL PROGRAM COST	\$124,830			\$14,949			\$12,595		' <u> </u>	\$12,419			\$18,360
				<del></del>		D 4 CHODDIA							

P-1 SHOPPING LIST

ITEM NO. 12 PAGE NO. 8

#### CLASSIFICATION:

## **UNCLASSIFIED**

BUDGET PROCUREMENT	HISTORY	AND PLA	NNING EXHIBIT (P-	5A)				A. DATE		
					T				February 19	98
B. APPROPRIATION/BUDGET ACTIV					C. P-1 ITEM NOM	MENCLATURE			SUBHEAD	
Weapons Procurement, N	avy/2; Othe	er Missiles	3			AFRIAL TARGETS				J2EM
					CONTRACT	AERIAL TARGETS	ı	DATE OF	SPECS	DATE
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	FIRST DELIVERY	AVAILABLE NOW	REVISIONS AVAILABLE
AQM-37C/FY-96	70	125	NAVAIR	8 DEC 94	C/Option	Raytheon A/C, Wichita, KS	FEB 96	JUN 97		
AQM-37C/FY-97	110	125	NAVAIR		C/Option	Raytheon A/C, Wichita, KS	FEB 97	JUN 98		
AQM-37C/FY-98	50	144(1)	NAVAIR		C/Option	Raytheon A/C, Wichita, KS	DEC 97	JUN 99	Yes	
AQM-37D/FY-99 (2)	35	156	NAVAIR		SS/FP	Raytheon A/C, Wichita, KS	FEB 99	JUN 00	Yes	MAY 98
BQM-74E/FY-96	120	218	NAVAIR	1 APR 95	C/FP	Northrop-Grumman, Hawthorne, CA	APR 96	JUL 97		
BQM-74E/FY-96 (3)	29	242	NAVAIR		C/Option	Northrop-Grumman, Hawthorne, CA	MAR 97	JUN 98		
BQM-74E/FY-97	64	242	NAVAIR		C/Option	Northrop-Grumman, Hawthorne, CA	MAR 97	JUN 98		
BQM-74E/FY-98	119	238	NAVAIR		C/Option	Northrop-Grumman, Hawthorne, CA	DEC 97	MAY 99	Yes	
BQM-74E/FY-99	135	222	NAVAIR		C/Option	Northrop-Grumman, Hawthorne, CA	FEB 99	JUN 00	Yes	
MQM-8G(EER)/FY-95	24	393	NAWC, Point Mugu	30 NOV 94	SS/FP	Allied-Signal, Mishawaka, IN	APR 95	MAR 96		
MQM-8G(EER)/FY-96	6	434(4)	NAWC, Point Mugu		SS/Option	Allied-Signal, Mishawaka, IN	JUL 96	OCT 97		
MQM-8G(EER)/FY-98	6	508(5)	NAWC, Point Mugu		SS/FP	Allied-Signal, Mishawaka, IN	FEB 98	MAR 99	Yes	
MA-31/FY-97	9	849	NAVAIR	14 OCT 94	SS/Option(6)	McDonnell Douglas, St. Louis, MO	JUN 97	MAR 98	Yes	
MA-31/FY-99	6	397	NAVAIR		SS/FP	McDonnell Douglas, St. Louis, MO	DEC 98	JUL 99	No	TBD
Foreign NDI-Supersonic/FY-98	1	1,951	NSMA	N/A	FP	CLASSIFIED	FEB 98	NOV98	N/A	
Foreign NDI-Supersonic/FY-99	2	1,491	NSMA		Option	CLASSIFIED	FEB 99	NOV99	N/A	
Foreign NDI-Subsonic/FY-99	3	1,491	NSMA	N/A	FP	CLASSIFIED	FEB 99	NOV99	N/A	

#### D. REMARKS

- (1) Price increase in AQM-37C due to Power Supply ECP
- (2) The FY-99 AQM-37D version will include the updated avionics system (old system will be replaced due to obsolete components).
- (3) Additional units procured on FY 97 contract.
- (4) The MQM-8G(EER) unit price includes the incorporation of the Inertia Measurement Unit (IMU) (a reliability improvement).
- (5) The MQM-8G(EER) unit price includes the incorporation of both the Inertia Measurement Unit (IMU) and Global Positioning System (GPS) (a reliability improvement).
- (6) Option on development contract.

FY 1998/99 BUDGET PRODUC	CTION	SCHE	DULE	, P-2	1													DATE						Y 19						
APPROPRIATION/BUDGET AC												,	Wea	pon	Sys	stem		P-1	ITE	ΜN	OMI	ENC	LAT	URI	Ξ					
Weapons Procurement, I	Navv/	BA-2	- OT	HER	MIS	SILE	ES								-									ΑE	RIA	L TA	ARG	ETS	i	
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BQM-34S		San Die				6		20		50+																		Е		
AQM-37C/D	Raythe	eon, Wic	chita, K	S		3		10		20									16									Е		
BQM-74E	Northr	op-Grun	nman, I	lawth,	CA	7-8		20		40-4	5								16									Е		
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BQM-34S/TRA	95	N	65	0	65		6	6	6	6	6	6	6	6	6	6	5									ļ		<u> </u>	ļ	C
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AQM-37C/RAYTHEON	95	N	88	17	71	8	9	9	9	9	9	9	9															ـ		0
AQM-37C/RAYTHEON	96	N	70	0	70									5	5	6	6	6	6	6	6	6	6	6	6	L		-	-	0
AQM-37C/RAYTHEON	96	N/RIK	1	0	1										1													ļ		0
AQM-37C/RAYTHEON	97	N	110	0	110					Α																9	9	9	9	74
AQM-37C/RAYTHEON	98	N	50	0	50															Α									ļ	50
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AQM-37D/RAYTHEON	99	N	35	0	35																							-	-	35
BQM-74E/NORTHROP-GRUMMAN	95	N	93	10	83	10	10	10	3	10	10	10	10	10														-	-	0
BQM-74E/NORTHROP-GRUMMAN	96	N	120	0	120	10	-10			10		-10			12	12	12	12	12	12	12	12	12	12				<b>†</b>	-	0
BQM-74E/NORTHROP-GRUMMAN	96	N	29	0	29						Α												·-	<u> </u>		1	3	3	3	19
BQM-74E/NORTHROP-GRUMMAN	97	N	64	0	64					-	Α															6	6	6	6	40
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BQM-74E/NORTHROP-GRUMMAN	98	N	119	0	119															Α			-			l		1		11
BQM-74E/NORTHROP-GRUMMAN	99	N	135	0	135																									13
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AQM-37C/RAYTHEON	97	N	110	36	74	9	9	9	9	9	9	10		١,٧	_		<u> </u>	•	,	<u> </u>	<u> </u>		- 1	<b>–</b> '`	'	· <b>`</b>	_	Ť	<del>⊢</del>	0
AQM-37C/RAYTHEON	98	N	50	0	50	9	9	3	3	3	3	10	10	4	4	4	4	4	5	5	4	4	4	4	4			+	-	0
AQM-37C/RAYTHEON	98	N/RIK	5	0	5					+		-		1	1	1	1	1	J		-	-	+	┟╌	-			+	-	0
AQM-37D/RAYTHEON	99	N N	35	0	35					Α					<u> </u>	-										3	3	3	3	23
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BQM-74E/NORTHROP	96	N	29	10	19	3	3	3	1	3	3	3												<b>1</b>				<b>†</b>		0
BQM-74E/NORTHROP	97	N	64	24	40	6	6	6	4	6	6	6																		0
BQM-74E/NORTHROP	98	N	119	0	119								10	10	10	10	10	10	10	10	10	10	10	9						0
BQM-74E/NORTHROP	99	N	135	0	135					Α											Ī					11	11	11	11	9
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Remarks:																														

FY 1998/99 BUDGET PRODU	ICTION	SCH	EDUL	E, P-2	21													DAT	E		FE	BRI	JAR	Y 1	998					
APPROPRIATION/BUDGET A Weapons Procurement,			2 OTF	HER	MISS	SILE	ES						Wea	apon	Syst	tem	1	P-1	ITE	ΜN	IOM	ENC	CLA			L T	ARG	ETS		
							Pro	duct	ion l	Rate	;				Proc	ure	mer	it Le	adtii	mes										
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Item			and L		n		SR		8-5		AX	to	Ос	t 1	О	ct 1	1	M	fg P	LT	M	fg P	LT		Tota	al		Mea	sure	<u> </u>
AQM-37C/D			chita, K			3		10		20									16									E		
BQM-74E	Northr	op-Gru	mman,	Hawth,	CA	7-8		20		40-	45								16									E		
									F	ISCA	L YE	AR 20	001									FISC	CAL Y	ÆAR	2002	:				
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AQM-37D/RAYTHEON	99	N	35	12	23	3	3	3	3	3	3	3	2				•			Ū					Ė					0
BQM-74E/NORTHROP	99	N	135	44	91	11	11	11	11	11	12	12	12																	C
										EISC		EAR	2002									EIS		/EAD	2004					
ITEM / MANUFACTURER	F	S	Q	D	В		2002			1 100	JAL I				YEAR	200	l 3					1 100				EAR 2	2004			ĺ
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Remarks:	•																													

DD Form 2445, JUL 87 P-1 SHOPPING LIST Previous editions are obsolete 311 / 244 ITEM NO 12 PAGE 11

Exhibit P-21 Production Schedule

FY 1998/99 BUDGET PRODU	CTION	SCHE	DULE	, P-2	1													DATE	Ē		FE	BRI	UAF	RY 19	998					
APPROPRIATION/BUDGET AC Weapons Procurement,	CTIVITY	′				SSIL							Wea	apor								ENC	LA1	TURI <b>AE</b>	E RIA	L T/	4RG	ETS	l	
							Pro	duct	ion I	Rate	,							nt Le	adtii	mes										
			nufactu										T P			TA			Initia			eorc							it of	
Item		Name					SR		8-5	_	AX	to	Oct	t 1	(	Oct	1		fg Pl	LT	M	lfg P	<u>LT</u>	<u> </u>	Tota	<u>اد</u>			asure	<del>)</del>
MQM-8G		Signal, I				2		3		4		<u> </u>	_						13		<u> </u>							Е		
MA-31	McDor	nnell Do	uglas, S	St Louis	s, MO	N/A	<u> </u>	N/A	ί	42+									7									Е		
FOREIGN NDI	Foreign	n Non-E	Develop	mental	Items	N/A	1	N/A		N/A									N/A								lacksquare	N/A		
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MQM-8G(EER)/ALLIED-SIGNAL	95	N	24	14	10	2	2	2	2	2																				0
MQM-8G(EER)/ALLIED-SIGNAL	96	N	6	0	6													3	3											0
MQM-8G(EER)/ALLIED-SIGNAL	98	N	6	0	6																	Α			_		-			6
MA-31/MCDONNELL DOUGLAS	97	N	9	0	9									Α									1		4				4	0
MA-31/MCDONNELL DOUGLAS	99	N	6	0	6																									6
																						L								Ĺ
Foreign NDI-Supersonic/Classified	98	N	1	0	1	<b>├</b> ─			<u> </u>	1	$\sqcup$		ļ				-				<b>!</b>	Α	-	₽	—	—	<u> </u>	ـــــ		1
Foreign NDI-Supersonic/Classified	99	N	2	0	2																									2
Foreign NDI-Subsonic/Classified	99	N	3	0	3					-													$\vdash$		-					3
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ITEM / MANUFACTURER	F	S	Q -	D	В		1998						CALE	NDAR	YEAF	R 199	9				<u> </u>		CA	ALEND	AR Y	EAR 2	2000			
	Y	C	T Y	E L	A L	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	J L	A U G	S E P	B A L
MQM-8G(EER)/ALLIED-SIGNAL	98	N	6	0	6	╁	+		Ë	+	3	3	<u> </u>	IN	-	0	'	<u>'</u>	_ v	C			<u> </u>	┿	┿		H	_	-	0
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MA-31/MCDONNEL DOUGLAS	99	N	6	0	6			А							1			2	3											0
Foreign NDI-Supersonic/Classified	98	N	1	0	1		1																	_						0
Foreign NDI-Supersonic/Classified	99	N	2	0	2					Α									1				1							0
Foreign NDI-Subsonic/Classified	99	N	3	0	3					A									1			1			1					0
1 ofeight ND1-Oubsonie Classified		- 11																	'			'			+ '-					Ŭ
Remarks:	'								_																					

DD Form 2445, JUL 87 Previous editions are obsolete P-1 SHOPPING LIST

311/244 ITEM NO 12 PAGE 12 Exhibit P-21 Production Schedule

## CLASSIFICATION: UNCLASSIFIED

Exhibit P-20, Require	ments Study		APF		JDGET ACTIVITY		DAT		V 4000
P-1 ITEM NOMENCLAT	IIDE		Admin Loo	WPN/BA-2 Other dtime (after Oct1)		Drod	Leadtime :	FEBRUAR	Y 1998
				,		Fiou	Leauline .	40 Mantha	
AQM-37C/D (Aerial T	argets)			4 Months	1	1	1	16 Months	T
		FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Buy Summary		70	110	50	35	35	45	65	85
Unit Cost (Vehicle)		.13	.12	.14	.16	.16	.16	.15	.15
Total Cost		\$8.8	\$13.7	\$7.2	\$5.5	\$5.6	\$7.0	\$9.7	\$12.6
Asset Dynamics									
Beginning Asset Position	1	97	118	122	136	161	142	112	83
Deliveries from all prior y		114	94	48					
Deliveries from FY 1997	funding			36	74				
Deliveries from FY 1998	funding				16	34			
Deliveries from FY 1999	funding					12	23		
Deliveries from subseque	ent years' funding						12	36	52
Other Gains									
Combat Losses/Usage									
Training/Test/Other Loss	es/Usage	93	90	70	65	65	65	65	65
Disposals/Retirements/A									
<b>End oy Year Asset Pos</b>	ition	118	122	136	161	142	112	83	70
Inventory Objective:									
Combatant Sh	ipfill								
Expenditures									
Training & Tes									
Depot Maint. F									
Other-WSPD	of DEC 95	140	140	140	140	140	140	140	140
Peacetime Pip									
	entory Objective:	140	140	140	140	140	140	140	140
Approved Acquisition Ob	jective	140	140	140	140	140	140	140	140
		Remarks:							
Other than Training	Actual Training								
Usage	Expenditures								
FY 1997 thru	FY 1997 thru								
1/6/98: 23	1/6/98: 52								
FY 1996: 37	FY 1996: 56								
FY 1995: 27	FY 1995: 69								
FY 1994: 22	FY 1994: 92								
FY 1993: 34	FY 1993: 67			P-1 SHOPPING I			CLASSIFIC		

DD Form 2454, JUN 86 ITEM NO. 12 PAGE NO. 13

**UNCLASSIFIED** 

#### **UNCLASSIFIED CLASSIFICATION:**

Exhibit P-20, Require	ments Study		AP		BUDGET ACTIVI	ITY	DAT		14.5% 4000
D 4 ITEM NOMENOLATI	LIDE		A -l	WPN/BA-2 Othe		In	L del	FEBRU	JARY 1998
P-1 ITEM NOMENCLATI			Admin Lea	adtime (after Oct	•	Prod	Leadtime :		
BQM-74E (Aerial Targ	gets)	i		4 Mon	ths		1	16	Months
		FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Buy Summary		149	64	119	135	135	155	153	153
Unit Cost (Vehicle)		.22	.24	.24	.22	.23	.22	.23	.23
Total Cost		\$33.2	\$15.6	\$28.3	\$30.0	\$30.6	\$34.6	\$34.8	\$35.8
Asset Dynamics									
Beginning Asset Position	1	247	247	211	174	128	86	154	177
Deliveries from all prior y	rear funding	157	119	94	19				
Deliveries from FY 1997	funding			24	40				
Deliveries from FY 1998	funding				50	69			
Deliveries from FY 1999	funding					44	91		
Deliveries from subseque	ent years' funding						132	178	150
Other Gains									
Combat Losses/Usage									
Training/Test/Other Loss	ses/Usage	157	155	155	155	155	155	155	155
Disposals/Retirements/A	ttritions/etc.								
<b>End oy Year Asset Pos</b>	ition	247	211	174	128	86	154	177	172
Inventory Objective:									
Combatant Sh	nipfill								
Expenditures									
Training & Tes	sting Rqmt								
Depot Maint. F									
Other-WSPD of		240	240	240	240	240	240	240	240
Peacetime Pip									
	entory Objective:	240	240	240	240	240	240	240	240
Approved Acquisition Ob	pjective	240	240	240	240	240	240	240	240
		Remarks:							
Other than Training	Actual Training								
Usage	Expenditures								
FY 1997 thru	FY 1997 thru								
1/6/98: 34	1/6/98: 80								
FY 1996: 36	FY 1996: 117								
FY 1995: 31	FY 1995: 124								
FY 1994: 23	FY 1994: 130								
FY 1993: 34	FY 1993: 127			P-1 SHOPPING			CLASSIFICA		

12 ITEM NO. DD Form 2454, JUN 86 PAGE NO. 14

#### CLASSIFICATION:

### **UNCLASSIFIED**

		В	UDGET ITEM	I JUSTIFICA	TION SHEET	•			DATE:			
				P-40						FEBRU <i>A</i>	RY 1998	
APPROPRIATION/BL	IDGET ACTIVITY	,					P-1 ITEM NOM	IENCLATURE				
Weapons Procure	ement, Navy/E	3A-2; OT	HER MISSIL	.ES			DRONES AN	ND DECOYS	(J2DJ)			
Program Element for	Code B Items:						Other Related	Program Eleme	nts			
		N/A							N/A			
	Prior	ID	E) / 1000	5)/ 1005	E) ( 1000	E) / 4000	51/ 0000	E) / 000 /	E) / 2000	E) / 0000	То	
	Years	Code	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	Complete	Total
QUANTITY												
COST												
(In Millions)	\$207.9		\$.0	\$17.1	\$.3	\$.3	\$.0	\$.0	\$.0	\$.0	\$.0	\$225.6

#### PROGRAM COVERAGE:

Funding for Drones and Decoys from FY 1986 through FY 1993 has been used for continued procurements of ADM-141 Tactical Air Launched Decoy (TALD) units, which are non-powered, glide trajectory driven vehicles. The ADM-141 TALD is an expendable of similar size to a 500 pound general purpose bomb, and is carried similarly. After launched from strike aircraft, the ADM-141 TALD uses radar signature augmentation and preprogrammed flight profiles to simulate manned aircraft. Its mission is to deceive and saturate hostile radar controlled air defenses, thus enhancing strike aircraft survivability. Currently, the A-6, F/A-18, F-14 and S-3 are fully qualified to deploy the ADM-141 TALD in both land Based and CV operations. Additionally, an AV-8B/TALD capability is planned.

Procurement of an improved TALD, (ITALD), ADM-141C, using FY 1994/95 funds was awarded in September 1996 for a total quantity of 98 ITALDs. A follow-on procurement is planned for approximately 110 ITALDs using FY 1997 funds. The major improvement to this decoy is an engine that will give the decoy a much longer stand-off range.

The FY 1998 and FY 1999 budget requests provide funding for production support efforts necessary to support final ITALD deliveries to Navy inventory.

P-1 SHOPPING LIST

ITEM NO. 13

PAGE NO. 1

CLASSIFICATION:

**UNCLASSIFIED** 

DD Form 2454, JUN 86

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)

FEBRUARY 1998

WEAT ON OTOTELL GOOT ANALTOID EXTIRET (1 0)											I LDI	0/11/1 15	30
TARGET SYSTEM: ITALD		FISCA	AL YEAR	96	FISCA	AL YEAR	97	FISCA	AL YEAR	98	FISCA	AL YEAR	99
MANUFACTURER: IMI LTD, RATAT HASHARON, IS	Prior Yrs		UNIT	TOTAL		UNIT	TOTAL		UNIT	TOTAL		UNIT	TOTAL
COST CODE: DJ010 FLYAWAY COST (\$000)	Total Costs	QTY	COST	COST	QTY	COST	COST	QTY	COST	COST	QTY	COST	COST
HARDWARE:													
ITALD 1/	\$21,220	0		\$0	110	\$140	\$15,400	0		\$0	0		\$0
CONTAINERS	\$200			\$0		\$5	\$275			\$0			\$0
TOTAL HARDWARE	\$21,420	0		\$0	110	\$143	\$15,675	0		\$0	0		\$0
PROCUREMENT SUPPORT (RECURRING):													,
CONTRACTOR ENGINEERING	\$403			\$0			\$0			\$0			\$0
GOVERNMENT IN-HOUSE	\$1,370			\$0			\$952			\$292			\$298
DOCUMENTATION	\$85			\$0			\$0			\$0			\$0
GOVERNMENT TEST	\$1,100			\$0			\$500			\$0			\$0
OTHER	\$0			\$0			\$0			\$0			\$0
TOTAL RECURRING	\$2,958			\$0			\$1,452			\$292			\$298
PROCUREMENT SUPPORT (NONRECURRING):													
PRODUCT IMPROVEMENT	\$0			\$0			\$0			\$0			\$0
SPECIAL TOOLING AND TEST EQUIPMENT	\$0			\$0			\$0			\$0			\$0
TOTAL NONRECURRING	\$0			\$0			\$0			\$0			\$0
TOTAL FLYAWAY	\$24,378	0	\$0	\$0	110	\$156	\$17,127	0	\$0	\$292	0	\$0	\$298
GROUND EQUIPMENT/FLEET SUPPORT COST:													1
GROUND EQUIPMENT	\$0			\$0			\$0			\$0			\$0
INSTALL & CHECKOUT	\$0			\$0			\$0			\$0			\$0
SPECIAL HANDLING EQUIPMENT	\$0			\$0			\$0			\$0			\$0
FLEET TEST EQUIPMENT	\$0			\$0			\$0			\$0			\$0
TRAINING DEVICES	\$24			\$0			\$0			\$0			\$0
DOCUMENTATION	\$0			\$0			\$0			\$0			\$0
ILS	\$527			\$0			\$0			\$0			\$0
TOTAL GRD EQUIP/FLEET SUP COST	\$551			\$0			\$0			\$0			\$0
WEAPONS SYSTEM COST	\$24,929	0	\$0	\$0	110	\$156	\$17,127	0	\$0	\$292	0	\$0	\$298
VARIOUS 2/	\$182,967			\$0			\$0			\$0			\$0
INITIAL SPARES	\$0			\$0			\$0			\$0			\$0
TOTAL PROGRAM COST	\$207,896	0	\$0	\$0	110	\$156	\$17,127	0	\$0	\$292	0	\$0	\$298

P-1 SHOPPING LIST

ITEM NO.

PAGE NO. 2

<sup>1/</sup> FY-95 funding was used for first article test units.

<sup>2/</sup> The amount identified against this cost element reflects total prior year funding associated with cost elements no longer financed in FY 1995 and beyond.

## **UNCLASSIFIED**

BUDGET PROCUREMENT	HISTORY AN	D PLANNIN	G EXHIBIT (P-5A)					A. DATE		
									February 19	98
B. APPROPRIATION/BUDGET ACTIVI	TY				C. P-1 ITEM NOM	MENCLATURE			SUBHEAD	
Weapons Procurement, Na	vy/BA-2; Oth	er Missiles				DRONES AND DECOYS				J2DJ
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISION AVAILABL
ADM-141C/FY-94	81	195(1)	NAVAIR	15 MAY 96	SS/FP	Israeli Military Industries, Ramat Hasharon, IS	SEP 96	JUL 98	YES	N/A
ADM-141C/FY-95	17	318(1)	NAVAIR		SS/FP	Israeli Military Industries, Ramat Hasharon, IS	SEP 96	MAR 98	YES	N/A
ADM-141C/FY-97	110	140	NAVAIR		SS/FP	Israeli Military Industries, Ramat Hasharon, IS	FEB 98	JUN 99	YES	N/A
D. REMARKS										

<sup>(1)</sup> FY-94 and FY-95 contracts were awarded concurrently. FY-95 funding was used for first article test units. The actual unit cost for production vehicles was \$193,116.00

DD Form 2446-1, JUL 87 P-1 SHOPPING LIST ITEM NO. 13 PAGE NO. 3

FY 1998/99 BUDGET PRODUC	TION S	CHED	ULE, F	P-21													DATE				Febr			8					
APPROPRIATION/BUDGET ACT												We	apor	n Sys	stem		P-1	ITEI	M N	OME	NCI	_ATL							
WEAPONS PROCUREME	NT, NA	AVY/E	3A-2	ОТН	ER M																		Dro	ones	anc	l De	coys	<u>;                                    </u>	
						Pro	oduct	tion I	Rate						ocure					_									
_			nufactu									_T P			_T Af			Initia			eorc			_				nit of	
Item		Name				MSR		8-5		AX	to	Oct	: 1		Oct 1			fg P	_T_	M	lfg P	LT		Tota	al	↓		asure	3
ADM-141C	IMI, Ra	amat Ha	sharon,	IS (TAL	D)	20	100	)	200									18								<u> </u>	E		
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						***************************************	***********	FI	ISCAL	YEAR	1997	7	*************	*********						·	FIS	CAL Y	EAR	1998	************		******************	************	_
ITEM / MANUFACTURER	F	S	Q	D	В	1996				T	T	CALE	NDAR	YEAR	R 1997	7		г				CA	LEND	DAR Y	EAR 1	998		T	
	Υ	V C	T Y	E L	A L	0 N C 0	D E	J A	F E	M A	A P	M A	J	J	A U	S E	0 C	N O	D E	J A	F E	M A	A P	M A	J	J	A U	S	B A
						T V	C	N	В	R	R	Y	N	L	G	P	T	V	C	N	В	R	R	Y	N	L	G	E	L
ADM-141C/IMI	94	N	81	0	81																					1			80
ADM 4440/IN																						10			ļ	L		<u> </u>	
ADM-141C/IMI	95	N	17	0	17		-					-			ļ							10			-	7		-	0
ADM-141C/IMI	97	N	110	0	110																Α						+		110
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									FISC	CAL Y	EAR	1999									FIS	CAL Y	EAR	2000					
ITEM / MANUFACTURER	F Y	S	Q	D	В	1998	1		T	T	ı	CALE	NDAR	YEAR	1999	·					Т	CA	LEND	AR Y	EAR 2	.000			
	Y	V C	T Y	E L	A L	0 N C 0	D E	J A	F E	M A	A P	M A	J	J	A U	S E	0 C	N O	D E	J A	F E	M A	A P	M A	J	J	A U	S	B A
						TV	C	N	В	R	R	Y	N	L	G	Р	T	V	C	N	В	R	R	Y	N	L	G	P	L
ADM-141C/IMI	94	N	81	1	80		15	20	20	25																			0
ADM 4.44 C/IMI	97	NI.	440	_	110								05	25	0.5	25	10										-	-	0
ADM-141C/IMI	97	N	110	0	110		-						25	25	25	25	10								-	-	-	-	
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Remarks:																													

	В	UDGET	TITEM JUST	<b>FIFICATION</b>	SHEET			DATE:			
			P-4	10					Februa	ry 1998	
APPROPRIATION/BUI	OGET ACTIVIT	ΓΥ				P-1 ITEM NO	MENCLATURE				
<b>Weapons Procure</b>	ment, Navy	/BA-2					OTH	<b>ER MISSILE</b>	SUPPORT	/2290	
Program Element for C	ode B Items:					Other Related	Program Elem	ents			
N/A								N/A			
	Prior	ID								То	
	Years	Code	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	Complete	Total
QUANTITY											
COST (In Millions)	N/A	Α	\$15.5	<b>\$17.8</b>	<b>\$15.2</b>	\$15.4	\$18.9	\$15.0	<b>\$16.6</b>	N/A	\$114.5

The Vertical Launching System (VLS) is a missile launching system for surface combatants, designed to launch Standard Missile, TOMAHAWK and Vertical Launch ASROC (VLA) weapons. The VLS significantly improves missile capacity, flexibility, multi-mission capability, reaction time and rate of fire and is designed to be adaptable to present and future weapons systems. Present requirements are to provide two 61 cell launchers for 22 TICONDEROGA (CG-47) Class Cruisers beginning with CG-52, one 61 cell launcher for 24 SPRUANCE (DD-963) Class destroyers and one 61 cell and one 29 cell launcher for 57 ARLEIGH BURKE (DDG-51) Class destroyers. A 61 cell launcher consists of eight VLS modules and 61 canisters. Canisters are used as a storage/shipping container for missiles ashore and as the magazine and firing tube aboard ship. In order to support the operating forces, it is necessary to have sufficient encanisterized missiles on hand to fill the logistic pipeline associated with the Combat Logistics Force (CLF) transportation times and mobilization considerations. To accomplish this one canister is required for every VLS missile variant that is procured. In addition, a small percentage of canisters are procured to cover those canisters that are lost, damaged or destroyed. The major portion of the WPN funds is for the procurement of VLS canisters. A small amount of funds is required to provide VLS unique equipment to the weapons stations and to provide ILS for canisters procured with WPN funds. Prior to FY-96, canisters were also funded by SCN and OPN Appropriations.

Evolved SEASPARROW Quad Pack (ESSM/QP) missile is being designed to provide an enhanced ship self defense capability for DDG-51 Flight IIA (DDG 79 and follow) ships. Procurement of ESSM/QP canisters is planned in FY00.

P-1 SHOPPING LIST

ITEM NO. 14 PAGE NO. 1

CLASSIFICATION:

### **UNCLASSIFIED CLASSIFICATION:**

	WEAPONS SYSTEM COST AN P-5	ALYS	SIS		Weapon Sy	rstem			DATE: Februar	v 1998	
	PRIATION/BUDGET ACTIVITY ons Procurement, Navy/BA-2		ID Code	P-1 ITEM	NOMENCLA	ATURE/SUB	HEAD		1	<b>,</b>	
-	•				OTHER M	ISSILE SU	PPORT/12	PFD			
			TOTAL CO	ST IN THO	USANDS O	F DOLLARS	3				
COST	ELEMENT OF COST	ID Code		FY 1997			FY 1998			FY 1999	
			QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
FD005	TYPE I CANISTERS		00	44.7	0.000	70	50.0	0.700	70	50.0	0.500
FD006	SM-2 MR BLK III/IIIA/IIIB (MK-13)  TYPE II CANISTERS		80	41.7	3,339	72	52.3	3,766	70	50.0	3,500
	TOMAHAWK (MK-14) SM-2 BLK IV (MK-21 MOD 0)		48	107.3	5,152	38	135.0	5,130	45	132.0	5,940
FD009	CANISTER EQUIPMENT				1,045			1,043			435
FD970	ILS SUPPORT				6,008			6,958			4,952
FD980	INITIAL TRAINING SUPPORT							950			411
ı											
TOTAL					15,544			17,847			15,238

DD FORM 2446, JUN 86

P-1 SHOPPING LIST

CLASSIFICATION:

## **UNCLASSIFIED**

BUDGET PROCUREMENT H	ISTORY ANI	D PLANNII	NG EXHIBIT (P-5A			Weapon System		A. DATE		
									February 19	98
B. APPROPRIATION/BUDGET ACTIVITY	1				C. P-1 ITEM NO	MENCLATURE			SUBHEAD	
Weapons Procurement, Nav	y/BA-2									
					OTHER MIS	SSILE SUPPORT			12FD	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF YES WHEN AVAILABLE
FY 97										
FD005/TYPE I CANISTERS										
SM-2 MR BLK III/IIIA/IIIB (MK-13)	80	41.7	NAVSEA		C/FP OPT	United Defense FMC/BM MINNEAPOLIS, MN	12/96	10/98	YES	
FD006/ TYPE II CANISTERS										
SM-2 BLK IV (MK-21 MOD 0)	48	107.3	NAVSEA		C/FP OPT	United Defense FMC/BM MINNEAPOLIS, MN	12/96	10/98	YES	
FY 98										
FD005/TYPE I CANISTERS										
SM-2 MR BLK III/IIIA/IIIB (MK-13)	72	52.3	NAVSEA	Jan-98	SS	United Defense FMC/BM MINNEAPOLIS, MN	3/98	10/99	YES	
FD006/ TYPE II CANISTERS										
SM-2 BLK IV (MK-21 MOD 0)	38	135.0	NAVSEA	Jan-98	SS	United Defense FMC/BM MINNEAPOLIS, MN	3/98	10/99	YES	
FY 99										
FD005/TYPE I CANISTERS										
SM-2 MR BLK III/IIIA/IIIB (MK-13)	70	50.0	NAVSEA		C/FP OPT	United Defense FMC/BM MINNEAPOLIS, MN	1/99	10/00	YES	
FD006/ TYPE II CANISTERS										
SM-2 BLK IV (MK-21 MOD 0)	45	132.0	NAVSEA		C/FP OPT	United Defense FMC/BM MINNEAPOLIS, MN	1/99	10/00	YES	

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FY 1998/99 BUDGET PRODU	CTION S	CHE	DULE,	P-21														DATI			F	ebr	uary	199	98					
APPROPRIATION/BUDGET AC Weapons Procurement, Navy													Wea	apor	Sys	stem	ו	P-1	ITE	M N	OME				E .E S	IIPP	OR.	г		
Treapone Frounding Havy	DA Z						Pro	duct	ion	Rate	<u> </u>				Pro	cure	eme	nt Le	adti	mes	011	ILIN	IVII		<u>. L                                   </u>	<u> </u>	OIX			
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SM-2 BLK III/IIIA/IIIB	United	d Defe	nse			120	)	330	)	480			3			3			18			18			21				Е	
SM-2 BLK IV	Minne	apolis	s, Mn																											
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ITEM / MANUFACTURER	F	S	Q	D	В		1996	,		,	,		CALE	NDAR	YEA	R 199	97		,				CA	LEND	AR Y	EAR 1	998		,	l
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DDG (SCN)	94		276		276	35	35	35	35	34	34	34	34															Н		0
SM-2 BLK III/IIIA/IIIB	94		64		64	8	8	8	8	8	8	8	8																	0
TOMAHAWK	94		30	12	18	3	3	2	2	2	2	2	2																	0
DDG (SCN)	95		288		288									42	41	41	41	41	41	41										0
SM-2 BLK III/IIIA/IIIB	95		70		70									10	10	10	10	10	10											0
TOMAHAWK	95		12		12									2	2	2	2	2	1	1										0
TOMAHAWK	96		50		50																5	5	5	5	5	5	5	5	5	5
SM-2 BLK III/IIIA/IIIB	97		80		80		-	Α					_										-							80
SM-2 BLK IV (MK-21 MOD 0)	97		48		48			Α																						48
SM-2 BLK III/IIIA/IIIB	98		72		72		-	<del> </del>					<del> </del>										Α		<u> </u>					72
SM-2 BLK IV (MK-21 MOD 0)	98		38		38																		Α							38
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ITEM / MANUFACTURER	F Y	S V	Q T	D E	B A	0	1998 N	D		F	М	А	CALE	NDAR .I	YEAI J		99 S	0		D			CA M	Υ	AR Y	EAR 2				В
		С	Υ	L	L	C	0 V	E	A N	E B	A R	P R	A	N U	U	A U G	E P	C	N O V	E C	J A N	F E B	A R	A P R	A Y	N N	U J	A U G	S E P	A L
TOMAHAWK	96		50	45	5	5										-														0
SM-2 BLK III/IIIA/IIIB	97		80		80	7	7	7	7	7	7	7	7	6	6	6	6											$\vdash$		0
SM-2 BLK IV (MK-21 MOD 0)	97		48		48	4	4	4	4	4	4	4	4	4	4	4	4													0
SM-2 BLK III/IIIA/IIIB	98		72		72													6	6	6	6	6	6	6	6	6	6	6	6	0
SM-2 BLK IV (MK-21 MOD 0)	98		38		38													4	4	3	3	3	3	3	3	3	3	3	3	0
SM-2 BLK III/IIIA/IIIB	99		70		70			<b></b>	A				<u> </u>				<b></b>						<u> </u>		<b> </b>			$\Box$		70
SM-2 BLK IV (MK-21 MOD 0)	99		45		45				Α																					45
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Remarks:																														

FY 1998/99 BUDGET PRODU	JCTION	SCHE	DULE	Ξ, P-2 <sup>-</sup>	1													DATI						/ 199						
APPROPRIATION/BUDGET A		1											Wea	apon	Sys	stem	)	P-1	ITE					TUR				_		
Weapons Procurement, Nav	y/BA-2																					HER	MI	SSIL	E S	UPF	POR	T		
							Pro	duct	ion	Rate	)								eadtii											
			nufacti								• > /		T Pi			TA			Initia			eord							it of	
Item OM O BUILD HUMB				ocatio	n		SR		8-5		AX	to	Oct	: 1	(	Oct	1	M	lfg Pl	_	M	fg P	LI		Tota			Mea		3
SM-2 BLK III/IIIA/IIIB SM-2 BLK IV		d Def				120	)	330	)	480	)		3			3			18			18			21				Е	—
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ITEM / MANUFACTURER	F	S	Q	D	В		2000	,		,	,		CALEN	NDAR	YEAR	200	1					,	CA	LEND	AR Y	EAR 2	2002			
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SM-2 BLK III/IIIA/IIIB	99		70		70	6	6	6	6	6	6	6	6	6	6	5	5													0
SM-2 BLK IV (MK-21 MOD 0)	99		45		45	4	4	4	4	4	4	4	4	4	3	3	3													0
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ITEM / MANUFACTURER	F	S	Q	D	В		2002					(	CALEN	NDAR	YEAF	₹ 200	3						CA	LEND	AR Y	EAR 2	2004			ĺ
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## **UNCLASSIFIED**

		BUI	OGET ITEM	<b>JUSTIFICA</b>	TION SHEE	T			DATE:			
				P-40							February 19	98
APPROPRIATION/BU	DGET ACTIVIT	ΓΥ					P-1 ITEM NO	MENCLATUR	Ē			
Weapons Procure	ement, Navy	,					T	OMAHAWK	MODS (J2D	ON)(PEO(CL	J)) (BLI: 230	100)
Program Element for C	Code B Items:						Other Related	Program Eler	nents			
<b>BA2/Other Missile</b>	es											
	Prior Years	ID Code	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total
QUANTITY												
COST (In Millions)	\$157.5	N/A	\$45.6	\$8.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	N/A	\$211.2

Funds are required to procure modifications for the Tomahawk Cruise Missiles. The modifications will be installed on a "turnkey" basis during the normal recertification cycle of each missile at contractor depot facilities. As a result, installation costs are not priced separately from the hardware costs in this line.

P-1 SHOPPING LIST CLASSIFICATION:

DD Form 2454, JUN 86 ITEM NO. 15 PAGE NO. 1

## **UNCLASSIFIED**

BUDGET	ITEM .	JUSTIFI	CATION	SHEET FO	OR AGGR	EGATED I	TEMS		DATE:			
			P	-40a						F	ebruary 19	98
APPROPRIATION/BUDGET A	CTIVITY	,					P-1 ITEM N	OMENCLAT	JRE			
Weapons Procurement,	Navy											
	ID	Prior									То	
Procurement Items	Code	Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	Complete	Total
Tomahawk Remanufacture												
Funding		157.500	45.585	8.096	0.000	0.000	0.000	0.000	0.000	0.000	0.000	\$211.181
Quantity		40	125	20								185
			<u>l</u>			DINICLICT		CL ACCITIO	<u> </u>			

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CLASSIFICATION:

**UNCLASSIFIED** 

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CLASSIFICATION: UNCLASSIFIED		INDIVID	IIAI BA	ODIEIC	ATIC	NA.																	Februa	ary 1998
P3A		INDIVID	UAL IV	ODIFIC	AIIC	N																		
MODELS OF SYSTEM AFFECTED:	R/UGM L	and Attack	k varian	ts		_	TYP	E MODII	FICAT	TION:				_			MOE	DIFICATI	ION T	ITLE:	Tom	ıahawk Rei	manufactur	е
DESCRIPTION/JUSTIFICATION:																								
Develop complete, In production.																								
Develop complete, in production.																								
DEVELOPMENT STATUS/MAJOR DEVELO	OPMENT	MILESTO	NES:											-										
	FY 199	4 & Prior	FY	1995	F١	1996	F,	Y 1997	F١	Y 1998	FY	1999	F۱	Y 2000	FY	2001	F١	2002	FY	2003		<u>TC</u>	TO	TAL
	QTY	\$	QTY			\$	QTY		QTY		QTY		QTY		QTY		QTY				QTY	/ <del>10</del> \$	QTY	\$
FINANCIAL PLAN (IN MILLIONS)																								
RDT&E																					1	1	0	0.0
<u>PROCUREMENT</u>																								
INSTALLATION KITS	0	140.2	40	17.3	125		20	8.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	185	211.2
INSTALLATION KITS - UNIT COST				0.433		0.365		0.405														<u> </u>		N/A
INSTALLATION KITS NONRECURRING																						<u> </u>		0.0
EQUIPMENT																						<u> </u>		0.0
EQUIPMENT NONRECURRING																						<u> </u>		0.0
ENGINEERING CHANGE ORDERS																						<u> </u>		0.0
DATA																						<u> </u>		0.0
TRAINING EQUIPMENT																						<u> </u>		0.0
SUPPORT EQUIPMENT																								0.0
OTHER																								0.0
OTHER																								0.0
OTHER																								0.0
INTERIM CONTRACTOR SUPPORT																								0.0
INSTALL COST																								0.0
TOTAL PROCUREMENT																								211.2

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CLASSIFICATION: UNCLASS	SIFIED																						Februar	y 1998
P3A (Continued)						INDIVIDU	AL M	ODIFICAT	TION (	Continue	d)													
MODELS OF SYSTEMS AFFE	CTED	: <u>R/U</u>	GM La	and Attack	varia	nt		_ МО	DIFIC	ATION TI	TLE:	Tomaha	awk Re	emanufac	cture						_			
INSTALLATION INFORMATIO	N:																							
METHOD OF IMPLEMENTATI	ON:	Contrac	tor Fa	acilities (D	epot)																			
ADMINISTRATIVE LEADTIME	:		4				_	PRODUC	CTION	LEADTIN	ΛE:		13											
CONTRACT DATES:	FY 1	997:		Feb-97				FY 1998	:		N/A			FY			N/A							
DELIVERY DATE:	FY 1	997:		Mar-98				FY 1998	:		N/A			FY	1999:	_	N/A		_					
										(\$ in M	illions)	١												
Cost:	Pric	r Years	F	Y 1995	F'	Y 1996	l F	Y 1997	F'	Y 1998		y 1999	F`	Y 2000	F'	Y 2001	F'	Y 2002	F	Y 2003	To C	omplete	7	Γotal
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS									٠.,	*						Ť		*						140.2
FY 1995 EQUIPMENT			40	17.3																			40	17.3
FY 1996 EQUIPMENT				*	125	45.6																	125	45.6
FY 1997 EQUIPMENT						*	20	8.1															20	8.1
FY 1998 EQUIPMENT								*																
FY 1999 EQUIPMENT																								
FY 2000 EQUIPMENT																								
FY 2001 EQUIPMENT																								
FY 2002 EQUIPMENT																								
FY 2003 EQUIPMENT																								
TO COMPLETE																							0	0
INSTALLATION SCHEDUL	E:											*TURN	KEY OF	PERATIO	N									
FY 1996		FY 1997	,	FY	1998		FY	1999		FY 2000		FY	2001		FY 2	2002		FY 2003	3	TC				
& Prior	1	2 3	4	1 2	3	4 1	2	3 4	1	2 3	4	1 2		4   1	2	3 4	1	2 3	4		TO	TAL		
In 10	10	10 10	32	31 31	31	5 5	5	5 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0	1	85		
Out 0	0	10 10	10	10 32	2 31	31 31	5	5 5	5	0 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0	1	85		

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			BUDGET ITE		CATION SI	HEET					DATE:	
				P-40							Februa	ry 1998
APPROPRIATION/BUDG	SET ACTIVITY						P-1 ITEM NC	MENCLATUR	RE			
Weapons Procurem	ent, Navy/ B	A-2 OTH	ER MISSILES					SF	PARROW M	ODIFICAT	IONS #2304	100
Program Element for Cod	le B Items:						Other Relate	d Program Ele	ements			
		0604755	SN .							N/A		
	Prior	ID									То	Total
	Years	Code		FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	Complete	Program
QUANTITY												
COST (\$M)		В		\$2.5								\$2.5
Initial Spares (\$M)												
Total (\$M)				\$2.5								\$2.5
Unit Cost (\$M)				N/A								

The Sparrow Modification program provides the U.S. Navy with upgraded air-to-air (AIM-7) and surface-to-air (RIM-7) missiles capable of intercepting extremely low flying antiship missiles. Sparrow Modification funding has been terminated by the Navy starting in FY-98. The FY-97 funding remaining in this line supports the introduction of the Evolved Seasparrow Missile (ESSM).

ESSM will provide an evolved kinematically improved aft-end section for mating, as an all up round, with the modified RIM-7P forebody guidance and warhead section. The ESSM improvement will provide the capability to counter maneuvering anti-ship missiles, expand battle space, and increase system firepower. The ESSM is designed for "quadpack" in the MK41 Vertical Launching System and to be compatible with MK29 trainable launchers for employment in AEGIS, NSSMS, and SSDS ships.

The FY-97 funding provides for ESSM pre-production engineering. Funding for ESSM in FY-98 and out is in line item #230700.

ESSM is a Code "B" Item. Planned date of approval for service use is September 1999. ESSM RDT&E funding is included in Program Element 0604755N, Project U0173.

	FY 1997	<u>FY 1998</u>	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
ESSM	2,478	0	0	0	0	0	0

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CLASSIFICATION: UNCLASSIFIED P3A		INDIVIE	NIAI I	MODIEI	^ A TIC	N.																		
MODELS OF SYSTEM AFFECTED:	RIM-7P	INDIVIL	JUALI	WIODIFIC	JATIC	- -	TYPI	E MODIF	ICATI	ON:				<del>-</del> -			MOE	DIFICATION	ON TI	TLE:	EVO	LVED SEA	SPARROW	MISSILE
DESCRIPTION/JUSTIFICATION:																								
ESSM will provide an upgraded surface to ESSM funds are budgeted in its own separ							anti-sh	ip missile	es, exp	oand bat	tle spac	ce, and i	ncrea	se syste	m fire	power.	Fundi	ing provid	des fo	r ESSM	1 pre-p	production	engineering	efforts.
 DEVELOPMENT STATUS/MAJOR DEVELO	OPMENT N	MILESTO	NES:				Curr	ently in I	EMD.	Major	Milesto	nes: C	DR 7/	97; LRII	P PMF	R 9/98;	OPEV	/AL 5/99	; MS	II 9/99				
	<u>FY 1994</u> QTY	<u>&amp; Prior</u> \$		<u>′ 1995</u> \$		<u>′ 1996</u> \$	<u>F`</u> QTY	<u>/ 1997</u> \$		<u>/ 1998</u> \$	<u>FY</u> QTY	<u>1999</u> \$		<u>/ 2000</u> \$		<u>′ 2001</u> \$		<u>/ 2002</u> \$		2003 \$	QTY	TC \$	TO QTY	TAL \$
FINANCIAL PLAN (IN MILLIONS)										·		-		·				,				*		,
RDT&E																							0	0.0
<u>PROCUREMENT</u>																								
INSTALLATION KITS																							0	0.0
INSTALLATION KITS NONRECURRING																								0.0
EQUIPMENT																								0.0
EQUIPMENT NONRECURRING																								0.0
ENGINEERING CHANGE ORDERS																								0.0
DATA																								0.0
TRAINING EQUIPMENT																								0.0
SUPPORT EQUIPMENT																								0.0
PRE-PRODUCTION ENGINEERING								2,478.0																2,478.0
OTHER																								0.0
OTHER																								0.0
INTERIM CONTRACTOR SUPPORT																								0.0

2,478.0

INSTALL COST

TOTAL PROCUREMENT

0.0

CLASSIFICATION: UNCLAS	SIFIED	)																						
P3A (Continued)						INDIVID	JAL M	ODIFICAT	ION (	Continue	d)													
MODELS OF SYSTEMS AFFE	ECTED	: RIM	/I-7P					МО	DIFIC	ATION TI	TLE:	EVOLVI	ED SE	SPARRO	M WC	ISSILE					_			
NSTALLATION INFORMATION METHOD OF IMPLEMENTAT		N/A																						
ADMINISTRATIVE LEADTIME	_	-					_	PRODUC	CTION	N LEADTIN	۱E٠													
CONTRACT DATES:		1997:			_			FY 1998:						FY	1999:									
DELIVERY DATE:		1997:	-			-		FY 1998:							1999:				-					
			-						-										-					
										(\$ in M														
Cost:	Pric	or Years	F`	Y 1995	F	Y 1996	F	Y 1997	F	Y 1998	F	Y 1999	F`	Y 2000	F	Y 2001	F	Y 2002	F	Y 2003	To C	omplete		Total
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS																								
FY 1995 EQUIPMENT																								
FY 1996 EQUIPMENT																								
FY 1997 EQUIPMENT																								
FY 1998 EQUIPMENT																								
FY 1999 EQUIPMENT																								
FY 2000 EQUIPMENT																								
FY 2001 EQUIPMENT																								
FY 2002 EQUIPMENT																								
FY 2003 EQUIPMENT																								
TO COMPLETE																								
INSTALLATION SCHEDUL FY 1996 & Prior In Out 0	3	ut=Deliver <u>FY 1997</u> 2 3 0 0 0 0	4 0		Y 1998 2 3 0 0		FY 2 0	ing to Flee 1999 3 4 0 0	1	dy for issur  FY 2000  2 3 0 0 0	4	1 2 0 0 0 0	0	4 1 0 0 0 0	0	2002 - 3 4 0 0 0 0	1 0 0	FY 2003 2 3 0 0 0 0	- 4 0 0	TC 0 0	(	TAL 0 0		
								ITEM	16		D/	AGE 3						CL	10015	P-3		LASSIFIE	.n	
								11 - 101	10		r*/	- S						UL/	<b>TOOIT</b>		. UNC	LAGGIFIE	٠.	

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			Bl	JDGET ITEN	/ JUSTIFIC	ATION SHE	ET				DATE:	
					P-40						Febr	uary 1998
<b>APPROPRIAT</b>	TION/BUDGET	ACTIVITY					P-1 ITEM NO	MENCLATURE				-
Weapons F	Procuremen	t, Navy							AIM-9 Si	dewinder N	lods	
Program Elem	nent for Code E	Items:					Other Related	Program Elen	nents			
								0207161N				
	Prior	ID									То	Total
	Years	Code	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	Complete	Program
QUANTITY							75	125	300	300	4,200	5,000
												•
COST (\$M)	\$29.6	Α	\$15.0	\$2.1	\$0.3	\$0.0	\$32.0	\$35.5	\$62.0	\$66.4	\$1,230.0	\$1,472.9

The AIM-9 Sidewinder short-range air-to-air missile (SRM) is a launch and leave, air combat munition that uses passive infrared (IR) energy for acquisition and tracking of enemy aircraft and complements the Advanced Medium Range Air-to-Air Missile. Air superiority in the SRM arena is essential and includes first shot, first kill opportunity against an enemy employing IR countermeasures.

The FY 1996 program procures AIM-9M modifications that provide the technology for an upgrade to the AIM-9M inventory. The Guidance and Control section of the AIM-9M missile will be modified at a government depot and/or contractor facilities. The AIM-9M-8/9 modification program improves the robustness of Counter Counter-Measures (CCM) without changing any basic AIM-9M characteristics. FY 1997 funds the installation of AIM-9M mods and production engineering support. FY 1998 provides funding to complete the installation of the AIM-9M mods.

Funds in 2000 and beyond will fund the AIM-9X. The AIM-9X is a long-term evolution to the AIM-9 which provides improvements in missile seeker. fuze, and kinematics which allow retrofit of components to current missiles to the maximum extent possible. Retrofitting of components will extend the operational effectiveness of existing inventories at an affordable cost while continuing evolution of the AIM-9 series.

AIM-9X PE 0207161N, E0457

AIM-9X Quantities:	FY 2000	FY 2001	FY 2002	FY 2003
Air Force	75	125	300	300
Navy	75	125	300	300

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**CLASSIFICATION:** 

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P3A		INDIVIDUAL	MODIF	ICATION	1																			
MODELS OF SYSTEM AFFECTED:	AIM-9	M					TYPE	MODIFIC	ATION:		Missile	Modifi	cation				MODIF	FICATIO	N TITLE:	AIM-9M	Produc	t Impr	ovemer	ıt
																				Progran	<u>n</u>			
DESCRIPTION/JUSTIFICATION: The current AIM-9M Sidewinder does in missile will be modified at a government characteristics.																	nventory	. The G	uidance :	and Cont	rol secti	on of th	ne AIM-9	M
DEVELOPMENT STATUS/MAJOR DE	VELOPM	IENT MILEST	ONES:				IN PR	ODUCTIO	N															
		FY1995 aı	nd Prior		FY	1996	<u>FY</u>	′ 1997	FY 1	998	FY	1999	FY	2000	FY	2001	FY	2002	<u>F)</u>	2003	]	ΓC	TC	<u>DTAL</u>
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
FINANCIAL PLAN (IN MILLIONS)																								
22745																								
RDT&E																							0	0.0
<u>PROCUREMENT</u>																								
INSTALLATION KITS	2529				1678	9.1																	4207	23.2
INSTALLATION KITS - UNIT COST INSTALLATION KITS NONRECURRI	NC	\$0.00 0.5				0.005																		0.5
TRAINING EQUIPMENT	ING	1.1				0.8																		1.9
GOV'T IN-HOUSE SYS ENGR/TEST		5.2				3.1		0.8																9.1
ILS SUPPORT EQUIPMENT		3.0				1.4		0.0																4.4
INSTALL COST		5.7				0.6		1.3		0.3														7.9
TOTAL PROCUREMENT		23.9				14.4		0.8		0.0														39.1
TOTAL COST		29.6				15.0		2.1		0.3														47.0

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MODELS OF SYSTEMS AFFECTED:  MODIFICATION TITLE: AIM-9M Product Improvement Program  INSTALLATION INFORMATION:  METHOD OF IMPLEMENTATION:  ADMINISTRATIVE LEADTIME:  CONTRACT DATES:  FY 1997:  MODIFICATION TITLE:  MODIFICATION TITLE:  AIM-9M Product Improvement Program  Months  FY 1998:  Months  FY 1999:  MODIFICATION TITLE:  AIM-9M Product Improvement Program  Months  FY 1999:  Months	CLASSIFICATION: UNCLASS	SIFIED																						
INSTALLATION INFORMATION: METHOD OF IMPLEMENTATION: Depot and Weapon Station  ADMINISTRATIVE LEADTIME: PY 1997: FY 1998: N/A FY 1999: N/A  CONTRACT DATES: FY 1997: FY 1998: N/A FY 1999: N/A    FY 1998: N/A FY 1999: N/A FY 1999: N/A FY 1999: N/A FY 1999: N/A FY 1999: N/A    Sin Millions	P3A (Continued)				INDIVIDU	UAL N	MODI	FICATION	(Cont	inued)														
METHOD OF IMPLEMENTATION: Depot and Weapon Station  ADMINISTRATIVE LEADTIME:  FY 1997:  FY 1998:  NA  FY 1998:  NA  FY 1999:  FY 2000 FY 2001  FY 2001  FY 2001  FY 2002  FY 2003  FY 2003  FY 2004  FY 1998:  NA  FY 1999:  FY 1999:  FY 2004  FY 1999:  FY 1999:  FY 2004  FY 2004  FY 1999:  FY 1999:  FY 1999:  FY 1999:  FY 2004  FY 1999:  FY 2004  FY 1999:  FY 2004  FY 1999:  FY 2004  FY 1999:  FY 2004  FY 1999:  FY 2004  FY 1999:  FY 2004  FY 1999:  FY 2004  FY 1999:  FY 2004  FY 2004  FY 2004  FY 2004  FY 1999:  FY 2005  FY 1999:  FY 2006  FY 1999:  FY 2006  FY 1999:  FY 2006  FY 1999:  FY 2007  FY 1999:  FY 2007  FY 1999:  FY 2008  FY 1999:  FY 2008  FY 1999:  FY 2008  FY 1999:  FY 2008  FY 1999:  FY 2008  FY 1999:  FY 2008  FY 1999:  FY 2008  FY 2008  FY 1999:  FY 2008  FY 1999:  FY 2008  FY 1999:  FY 2008  FY 2008  FY 1999:  FY 2008  FY 2008  FY 1999:  FY 2008  FY 1999:  FY 2008  FY 1999:  FY 2008  F	MODELS OF SYSTEMS AFFE	ECTED:						_ МО	DIFIC	ATION TI	LE:	AIM-9M	Prod	uct Impro	veme	ent Progra	ım				_			
PRODUCTION LEADTIME:	INSTALLATION INFORMATIO	N:																						
Prior Years   FY 1997:   FY 1998: N/A   FY 1999:	METHOD OF IMPLEMENTAT	ION:	Depot and W	/eapon	Station																			
Cost:   Prior Years   FY 1996   FY 1997   FY 1998   FY 1999   FY 2000   FY 2001   FY 2002   FY 2003   To Complete   Total	ADMINISTRATIVE LEADTIME	:		•			-	PRODUC	CTION	LEADTIN	1E:		Mor	nths										
Cost:	CONTRACT DATES:	FY 199	97:	_				FY 1998	:	N/A				FY	1999	: N/A	٨							
Cost:	DELIVERY DATE:	FY 199	97:		<del>-</del> -			FY 1998	:	N/A				FY	1999	: N/A	١		_					
Cost:										(⊄ ir	Millio	nc)												
PRIOR YEARS 2529 5.5	Cost:	Dr	rior Vears		FV 1006	3		FV 1007	F\				F	V 2000	F	V 2001	F	V 2002	F	V 2003	To C	omnlete	т	otal
PRIOR YEARS 2529 5.5 FY 1995 EQUIPMENT	0031.			Otv			OTV				_													
FY 1995 EQUIPMENT FY 1996 EQUIPMENT FY 1998 EQUIPMENT FY 1998 EQUIPMENT FY 1998 EQUIPMENT FY 1999 EQUIPMENT FY 2000 EQUI	PRIOR YEARS			Qty	Ψ		QII	Ψ	Qty	Ψ	Qty	Ψ	Qty	Ψ	Qty	Ψ	Qty	Ψ	Qty	Ψ	Qty	Ψ		
FY 1996 EQUIPMENT																								
FY 1998 EQUIPMENT FY 1999 EQUIPMENT FY 2000 EQUIPMENT FY 2000 EQUIPMENT FY 2001 EQUIPMENT FY 2002 EQUIPMENT FY 2003 EQUIPMENT FY 2003 EQUIPMENT FY 2003 EQUIPMENT FY 2004 EQUIPMENT FY 2005 EQUIPMENT FY 2005 EQUIPMENT FY 2006 EQUIPMENT FY 2006 EQUIPMENT FY 2007 EQUIPMENT FY 2008 EQUI			0.2	439	0.6		981	1.3	258	0.3													1678	#REF!
FY 1999 EQUIPMENT FY 2000 EQUIPMENT FY 2001 EQUIPMENT FY 2001 EQUIPMENT FY 2002 EQUIPMENT FY 2003 EQUIPMENT TO COMPLETE  INSTALLATION SCHEDULE:    FY 1996	FY 1997 EQUIPMENT																							
FY 2001 EQUIPMENT	FY 1998 EQUIPMENT																							
FY 2001 EQUIPMENT FY 2002 EQUIPMENT FY 2003 EQUIPMENT TO COMPLETE  INSTALLATION SCHEDULE:  FY 1996 8 Prior 1 2 3 3 3 4 1 2 3 4 1 3 2 3 3 4 1 3 2 3 3 4 1 3 2 3 3 4 1 3 2 3 3 4 1 3 2 3 3 4 1 3 2 3 3 4 1 3 2 3 3 4 1 3 2 3 3 4 1 3 2 3 3 4 1 3 2 3 3 4 1 3 2 3 3 4 1 3 2 3 3 4 1 3 2 3 3 4 1 3 2 3 3 4 1 3 2 3 3 4 1 3 2 3 3 4 1 3 2 3 3 4 1 3 3 3 4	FY 1999 EQUIPMENT																							
FY 2002 EQUIPMENT FY 2003 EQUIPMENT TO COMPLETE  INSTALLATION SCHEDULE:    FY 1996	FY 2000 EQUIPMENT																							
TO COMPLETE	FY 2001 EQUIPMENT																							
INSTALLATION SCHEDULE:    FY 1996   FY 1997   1 2 3 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 1 2 3 4 1 1 1 2 3 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	FY 2002 EQUIPMENT																							
INSTALLATION SCHEDULE:    FY 1996     FY 1997     FY 1999																								
FY 1996   FY 1997   TOTAL   FY 1997   TOTAL   FY 1997   TOTAL   FY 1998   TOTAL   FY 2001   TOTAL   FY 2002   TOTAL   FY 2002   TOTAL   FY 2003   TOTAL   FY 2004   TOTAL   FY 2005   TOTAL	TO COMPLETE																							
FY 1996   FY 1997   TOTAL   FY 1997   TOTAL   FY 1997   TOTAL   FY 1998   TOTAL   FY 2001   TOTAL   FY 2002   TOTAL   FY 2002   TOTAL   FY 2003   TOTAL   FY 2004   TOTAL   FY 2005   TOTAL																								
FY 1996   FY 1997   TOTAL   FY 1997   TOTAL   FY 1997   TOTAL   FY 1998   TOTAL   FY 2001   TOTAL   FY 2002   TOTAL   FY 2002   TOTAL   FY 2003   TOTAL   FY 2004   TOTAL   FY 2005   TOTAL		_																						
Ref.   1   2   3   3   4   1   2   3   4   1			=			. —				E) / 2222					=> (		-	=>/						
In						Ш.			II .								Ш.	_	-	<u>1C</u>				
Out         2529         26         112         434         120         120         78         0		1				1																		
Note: Input: Induction to Contractor Output: Delivery of modified GCS from contractor					-														-					
Output: Delivery of modified GCS from contractor	Out 2529	26	112 434	120	120	120	78	0 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0	#R	EF!		
Output: Delivery of modified GCS from contractor	Note: Input: Induction to	Contrac	tor	_																				
				ntracto																				
	Output. Delivery of t	nounieu	GGG HUH CUI	<u>II</u> II aClUI																P-:	3A			

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			BUDGET I			N SHEET					DATE:	
				P-4	10						FEB	1998
APPROPRIATION/BUDGE	T ACTIVITY						P-1 ITEM N	OMENCLATI	JRE			
Weapons Procureme	nt, Navy/B <i>A</i>	2-Other	Missiles			HARE	POON/SLA	M MODIFI	CATION (	J2EW) (PE	O-CU)	
Program Element for Code	B Items:					Other Relate	ed Program E	lements				
N/A							0604603	N				
	Prior	ID									То	Total
	Years	Code	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	Complete	Program
QUANTITY												
COST (\$M)	\$160.6		\$2.5	\$40.3	\$30.0	\$39.5	\$35.6	\$30.8	\$34.1	\$35.7	\$189.5	\$598.6

MISSION AND DESCRIPTION: The HARPOON/SLAM missile modification program provides funds for Engineering Change Proposals (ECPs) and other improvements to its weapons components which are already in the inventory and requires retrofit activity to produce the SLAM EXPANDED RESPONSE and HARPOON BLK II missile. Additionally, exercise sections are procured to meet fleet training requirements. The SLAM ER missile with the addition of Automatic Target Acquisition (ATA), Automated Mission Planning, Real Time Target Capability, Increased Range and Flight Envelope and Increased Warhead Penetration has matured into a permanent Standoff Outside Area Defense (SOAD) weapon that will remain effective through the year 2015. HARPOON BLK II modification retrofits the integrated global positioning system/inertial navigation system (GPS/INS) from the Joint Direct Attack Missile (JDAM) guidance set. The HARPOON BLK II is designed to meet the current requirements for effectiveness in littoral waters.

MODIFICATION	Prior Years	FY96	FY97	FY98	FY99	FY00	FY01	FY02	FY03
CAPSULE	3.068	1.807	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENCAPSULATED EX	2.221	0.741	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SURFACE LAUNCH EX	11.718	0.000	0.042	0.000	0.000	0.000	0.000	0.000	0.000
AIR LAUNCH EX	1.403	0.000	0.129	0.000	0.000	0.000	0.000	0.000	0.000
SLAM-ER	0.000	0.000	40.178	30.016	39.506	35.582	28.024	28.441	29.218
HARPOON BLK 2	0.000	0.000	0.000	0.000	0.000	0.000	2.800	5.700	6.500
VARIOUS 1/	142.207	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTALS	160.617	2.548	40.349	30.016	39.506	35.582	30.824	34.141	35.718

1/ The amount identified against this cost element reflects total prior year funding associated with cost elements no longer funded in FY 95 and beyond.

P-1 SHOPPING LIST

**CLASSIFICATION:** 

P3A		INDIVID	UAL	MODIFI	CATIC	ON																		
MODELS OF SYSTEM AFFECTED:	UGM-840	C/D				_	TYP	E MODIF	FICAT	ION:				_			MOE	DIFICATI	ON T	ITLE:	CAP	SULE		
DESCRIPTION/JUSTIFICATION:																								
Capsule for submarine launched HARPOOI	N-CORRC	SION co	rrectiv	e action	s cha	nge-repl	ace no	on-ready	-for-is	sue or ex	xpende	ed capsu	ile ass	semblies.										
DEVELOPMENT STATUS/MAJOR DEVELO	DMENT N	/III ESTO	NES:				PRO	DUCTIO	INI															
DEVELOT MENT STATOS/MAJOR DEVELO	/	MILLO I O	INLO.				110	DOOTIC	/1 N					_										
	FY 1994	& Prior	F۱	/ 1995	FΥ	′ 1 <u>996</u>	F١	<u> 1997</u>	F۱	Y 1998	FY	1999	F۱	Y 2000	FΥ	2001	F۱	2002	FY	2003		<u>TC</u>	TO.	TAL
	QTY	\$	QTY		QTY		QTY		QTY		QTY		QTY			\$	QTY				QTY	\$	QTY	\$
FINANCIAL PLAN (IN MILLIONS)																								
RDT&E																							0	0.0
PROCUREMENT																								0.0
INSTALLATION KITS	5	2.0	2	1.1	7	1.1																	14	4.2
INSTALLATION KITS - UNIT COST				0.550		0.157																		
INSTALLATION KITS NONRECURRING																								0.0
EQUIPMENT																								0.0
EQUIPMENT NONRECURRING																								0.0
ENGINEERING CHANGE ORDERS																								0.0
DATA																								0.0
TRAINING EQUIPMENT						0.7							<u> </u>											0.7
SUPPORT EQUIPMENT			-		-		-		-				-		-									0.0
OTHER													-											0.0
OTHER OTHER									1				1											0.0
INTERIM CONTRACTOR SUPPORT											-		<u> </u>											0.0
INSTALL COST		0.0	1	0.0		0.0			1				1											0.0
TOTAL PROCUREMENT	5	2.0	2		7	1.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	14	4.9

P-1 SHOPPING LIST

CLASSIFICATION:

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				I	NDIVIDU	AL M	ODIFICAT	ION (	(Continued	d)													
CTED	): <u>UG</u>	M-840	C/D				_ MO	DIFIC	ATION TIT	LE:	CAPSU	LE								_			
-						_																	
_			iths	_						1E: _	24	4 Mon											
																		_					
FY 1	1997:	N/A					FY 1998:		N/A				FY	1999:	N/A			_					
									/Φ : NA	:0:													
Dric	or Vooro		V 100E		/ 1006	F	V 1007	-			,	l Ev	/ 2000		/ 2001		V 2002		V 2002	To C	omplete	Т.	otol
																		_					\$
Qty	Ψ	Qty	Ψ	5			Ψ	Qty	Ψ	Qty	Ψ	Qty	Ψ	Qty	Ψ	Qty	Ψ	Qty	Ψ	Qty	Ψ		Ψ (
				1 3	0.0	2	0.0					1											
				+ +			0.0	7	0.0			1 1										7	
									0.0			1 1										0	
				1 1								1 1										0	
				1 1								1 1										0	
				1 1								1 1										0	
																						0	(
																						0	(
																						0	(
																						0	(
1 0 0	FY 1997 2 3 0 2 0 2	4 0 0		3	4 1 0 0 0 0	FY 2 0 0	1999 3 4 0 0 0 0	1 0 0	FY 2000 2 3 0 0 0 0	4 0 0	1 2	0	4 1 0 0 0 0	FY 2 0 0	2002 3 4 0 0 0 0	1 0 0	FY 2003 2 3 0 0 0 0	3 4 0 0	<u>TC</u> 0 0	1	4		
	Price Qty	ON:	ON:	ON:	ON:    7   Months     FY 1997: N/A     N/A     Prior Years   FY 1995   FY     Qty   \$   Qty   \$   Qty	ON:    7   Months   FY 1997   N/A	ON:    7   Months   FY   1997: N/A   N/A	ON: :	ON:	ON:	ON:	ON:	ON:	ON:	ON:	ON:	ON:	ON:	ON:	ON:	ON:	ON:	ON:

P-1 SHOPPING LIST

P-3A CLASSIFICATION:

ITEM NO. 18 PAGE NO. 3

РЗА		INDIVID	UAL	MODIFIC	CATIO	N																		
MODELS OF SYSTEM AFFECTED:	UGM-840	C/D					TYP	E MODIFIC	CATIO	N:					MOD	IFICATION	N TITLE:	ENCAPSU	JLATE	D HARPO	ON EX	KERCISE F	ROUNI	D
DESCRIPTION/JUSTIFICATION:																								
Convert sub-launch tactical missiles to flee	t exercise/t	telemetry	/ missi	iles.																				
		,				.,,																		
DEVELOPMENT STATUS/MAJOR DEVELO	JPMENT N	MILESTO	INES:		Procu	urement/In	stallat	ion Exercis	e; No	milestone	s requii	ea												
	FY 1994	& Prior	F١	1995	F	Y 1996		FY 1997	F	Y 1998	F	Y 1999	F	Y 2000	F	Y 2001	ΕY	2002	F	Y 2003		TC	٦	ΓΟΤΑL
	QTY	\$	QTY		QTY		QTY		QTY		QTY		QTY		QTY		QTY	\$	QTY		QTY		QTY	
FINANCIAL PLAN (IN MILLIONS)																							Т	
RDT&E																							0	0.0
<u>PROCUREMENT</u>																								
INSTALLATION KITS	10	1.1	4	1.0	2	0.7																	16	2.8
INSTALLATION KITS - UNIT COST				0.250		0.350																		
INSTALLATION KITS NONRECURRING																							T	0.0
EQUIPMENT																							T	0.0
EQUIPMENT NONRECURRING																								0.0
ENGINEERING CHANGE ORDERS																								0.0
DATA																								0.0
TRAINING EQUIPMENT																								0.0
SUPPORT EQUIPMENT																								0.0
OTHER																								0.0
OTHER																								0.0
OTHER																								0.0
INTERIM CONTRACTOR SUPPORT																								0.0
INSTALL COST		0.1																				0.2		0.3
TOTAL PROCUREMENT	10	1.2	4	1.0	2	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.2	16	3.1

P-1 SHOPPING LIST

CLASSIFICATION:

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P3A (Continued)						INDIVIDU	JAL M	ODIFICA	TION	(Continu	ed)													
MODELS OF SYSTEMS AFF	ECTE	): <u>UG</u>	M-84	C/D				МС	DIFIC	CATION T	TTLE:	ENCAF	PSULA	TED HAR	RPOON	I EXERCI	SE RO	OUND CC	NVER	SION K	<u>T</u> S			
INSTALLATION INFORMATI METHOD OF IMPLEMENTA	TION:						_					_												
ADMINISTRATIVE LEADTIM			Mor		_					N LEADTI	IME:	2	4 Moi		<del>_</del>									
CONTRACT DATES:		1997:	N/A					FY 1998		N/A					1999		N/A		_					
DELIVERY DATE:	FY	1997:	N/A					FY 1998	<b>5</b> :	N/A				FY	1999	_	N/A		_					
										(\$ in	Millions	s)												
Cost:	Pri	or Years	F	Y 1995	F١	/ 1996	F'	Y 1997	F	Y 1998	F`	1999	F	Y 2000	F	Y 2001	F	Y 2002	F`	Y 2003	To Co	mplete *		Total
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS	6	0.1																			4	0.1		0.2
FY 1995 EQUIPMENT																					4	0.1	4	0.1
FY 1996 EQUIPMENT																					2	0.0	2	0.0
FY 1997 EQUIPMENT																								
FY 1998 EQUIPMENT																								
FY 1999 EQUIPMENT																								
FY 2000 EQUIPMENT																								
FY 2001 EQUIPMENT																								
FY 2002 EQUIPMENT																								
FY 2003 EQUIPMENT																								
TO COMPLETE																								
INSTALLATION SCHEDU FY 199 & Prio In 6	6	FY 1997 2 3 0 0	4 0	1 2	1998 3 0	4 1 0 0	2	1 <u>999</u> 3 4 0 0	1 0	FY 2000 2 3 0 0			Y 2001 2 3		2	2002 3 4 0 0	1 0	FY 2003 2 3 0 0	4	<u>TC</u>	TOT			
Out 6  *Actual cost is \$20K per ur	0_ nit.	0 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0	0	10	16	<u>`</u>		
																				P-	-3A			
										P-	1 SHO	PPING L	JIST							CLASSI	FICATIO	N:		

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РЗА		INDIVID	UAL	MODIFI	CATIO	ON																		
MODELS OF SYSTEM AFFECTED:	RGM-840	C/D				_	TYP	E MODI	FICAT	TION:				_	MOD	IFICAT	ION T	TTLE:					OON EXERC	CISE
DESCRIPTION/JUSTIFICATION:																			ROU	ND CC	NVEF	RSION KIT	S	
Capsule for submarine launched HARPOC	N-CORRO	OSION co	orrecti	ive action	ns cha	ange-rep	olace r	non-read	ly-for-	issue or	expend	ded caps	sule as	ssemblie	S.									
								OUDEL			47101	LEVED	0105		-001	UE 0 DE	01115							
DEVELOPMENT STATUS/MAJOR DEVELO	PMENT	MILEST	)NES				PRC	CUREN	IEN I /	INSTALL	_A HON	1 EXER	CISE;	NO MIL	-8101	NES RE	QUIR	ED	_					
	FY 1994	& Prior	_	Y 1995		′ 1 <u>996</u>	_	/ 1 <u>997</u>	_	Y 1998		1999		<u>/ 2000</u>		2001	_	1 2002		2003		<u>TC</u>	<u>TO</u>	<u>TAL</u>
	QTY	\$	QTY	′\$	QTY	\$	QTY	\$	QTY	′\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
FINANCIAL PLAN (IN MILLIONS)																								
																							<u> </u>	
RDT&E																							0	0.0
<u>PROCUREMENT</u>																								
INSTALLATION KITS	34	9.3	3	1.7																	15	5.3	52	16.3
INSTALLATION KITS - UNIT COST				0.567																				
INSTALLATION KITS NONRECURRING																								0.0
EQUIPMENT																								0.0
EQUIPMENT NONRECURRING																								0.0
ENGINEERING CHANGE ORDERS																								0.0
DATA																								0.0
TRAINING EQUIPMENT																								0.0
SUPPORT EQUIPMENT																							1	0.0
OTHER																							1	0.0
OTHER																								0.0
OTHER																								0.0
INTERIM CONTRACTOR SUPPORT																								0.0
INSTALL COST		0.5		0.2		0.0		0.1														0.4		1.2
TOTAL PROCUREMENT	34	9.8	3	1.9	0	0	7	0.1	0	0	0	0	0	0	0	0	0	0	0	0	15	5.7	52	17.5
					P-1	SHOPPI	NG L	İST				•							•		CLAS	SSIFICATION	JN:	

**UNCLASSIFIED** 

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P3A (Continued)						INDIVIDU	JAL M	ODIFICAT	ΓΙΟΝ	(Continue	ed)													
MODELS OF SYSTEMS AFFE	ECTED:	RG	M-84	C/D				МО	DIFIC	CATION TI	TLE:	SURFA	CE LA	UNCH H	ARPO	ON EXER	CISE	ROUND	CONV	ERSION	KITS			
INSTALLATION INFORMATION INFORMATION OF IMPLEMENTAT																								
ADMINISTRATIVE LEADTIME	:	7	' Mor	nths				PRODUC	OITC	N LEADTII	ME:	24	4 Moi	nths										
CONTRACT DATES:	FY 1	997:	N/A		-			FY 1998:	:	N/A	-			FY	1999	: N/A	١							
DELIVERY DATE:	FY 19	997:	N/A	ı				FY 1998:		N/A					1999		١		_					
										(\$ in N	lillions	s)												
Cost:	Prio	Years	F	Y 1995	F'	Y 1996	FY	1997 *	F	Y 1998		ý 1999	F	Y 2000	F	Y 2001	F	Y 2002	F\	Y 2003	To Co	omplete	-	Total
	Qty	\$	Qty		Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS	22	0.5					4	0.1	,	·						·		·	1 1				34	0.8
FY 1995 EQUIPMENT							3	0.0															3	0.0
FY 1996 EQUIPMENT																								
FY 1997 EQUIPMENT																								
FY 1998 EQUIPMENT																								
FY 1999 EQUIPMENT																								
FY 2000 EQUIPMENT																								
FY 2001 EQUIPMENT																								
FY 2002 EQUIPMENT																								
FY 2003 EQUIPMENT																								
TO COMPLETE																					15	0.4	15	0.4
INSTALLATION SCHEDUL FY 1996 & Prior		<u>FY 1997</u> 2 3			1998 3	4 1	<u>FY</u> 2	1 <u>999</u> 3 4	1	FY 2000 2 3	4	1 <u>FY</u>	<u>′ 2001</u> 3	4 1		2002 3 4	1	FY 2003 2 3		TC	то	ΓAL		
In 30	0	2 3 0 3	4	0 0	3	0 0	0	3 4 0	0	2 3 0 0	0	0 0	3 0	0 0	0	3 4 0 0	0	0 0		15	5	2		
Out 30	0	0 3		0 0	0	0 0		0 0		0 0	0	0 0		0 0		0 0	0	0 0		15		2		
*Actual cost is \$6K per unit.	,																				3A			
								P-1 SHO	PPIN	G LIST										CLASS	IFICAT	ON:		

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РЗА		INDIVID	UAL	MODIFI	CATIO	ON																		
MODELS OF SYSTEM AFFECTED:	AGM-840	C/D				-	TYP	E MODII	FICAT	ION:				_	MOE	DIFICAT	ION T	ITLE:			Н НА	RPOON E	XERCISE R	OUND
DESCRIPTION/JUSTIFICATION:																			MOL	KIIS	-			
Capsule for submarine launched HARPOC	N-CORRO	OSION co	orrecti	ve actio	ns cha	ange-re <sub>l</sub>	place i	non-read	ly-for-	ssue or	expend	led cap	sule a	ssemblie	es.									
DEVELOPMENT STATUS/MAJOR DEVELO	OPMENT	MILESTO	ONES	:			PRC	CUREM	ENT/I	NSTALL	ATION	I EXER	CISE;	NO MIL	ESTO	NES RE	QUIR	ED	_					
			_																		OT) (			
	QIY	\$	QIY	\$	QIY	\$	QIY	\$	QIY	\$	QIY	\$	QIY	\$	QIY	\$	QIY	\$	QIY	\$	QIY	\$	QIY	\$
FINANCIAL PLAN (IN MILLIONS)							-				1													
	-		_				-				<u> </u>								_					
RDT&E						ļ	-						1										0	0.0
<u>PROCUREMENT</u>																								
INSTALLATION KITS			6.0																				6	1.4
INSTALLATION KITS - UNIT COST				0.233																				
INSTALLATION KITS NONRECURRING																								0.0
EQUIPMENT																								0.0
EQUIPMENT NONRECURRING																								0.0
ENGINEERING CHANGE ORDERS																								0.0
DATA																								0.0
TRAINING EQUIPMENT																								0.0
SUPPORT EQUIPMENT																								0.0
OTHER																								0.0
OTHER																								0.0
OTHER											1													
INTERIM CONTRACTOR SUPPORT	1		1				1		1		1						1		1					
INSTALL COST	+		1				†	0.1	1		1		1		1				1					
TOTAL PROCUREMENT	MOD KITS   MOD KITS   MOD KITS   MOD KITS																							

P-1 SHOPPING LIST

CLASSIFICATION:

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#### **UNCLASSIFIED** CLASSIFICATION: P3A (Continued) **INDIVIDUAL MODIFICATION (Continued)** MODELS OF SYSTEMS AFFECTED: AGM-84C/D MODIFICATION TITLE: AIR LAUNCH HARPOON EXERCISE ROUND MOD KITS INSTALLATION INFORMATION: METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 7 Months PRODUCTION LEADTIME: 24 Months CONTRACT DATES: FY 1997: N/A FY 1998: N/A FY 1999: N/A DELIVERY DATE: N/A N/A N/A FY 1997: FY 1998: FY 1999: (\$ in Millions) Prior Years FY 1995 FY 1999 FY 2000 FY 2001 FY 2002 FY 2003 To Complete Cost: FY 1996 FY 1997 FY 1998 Total Qty Qty Qty Qty Qty \$ Qty \$ Qty \$ \$ \$ \$ \$ \$ Qty \$ Qty Qty \$ Qty \$ \$ Qty PRIOR YEARS **FY 1995 EQUIPMENT** 6 0.1 6 0.1 **FY 1996 EQUIPMENT** FY 1997 EQUIPMENT FY 1998 EQUIPMENT **FY 1999 EQUIPMENT** FY 2000 EQUIPMENT FY 2001 EQUIPMENT FY 2002 EQUIPMENT **FY 2003 EQUIPMENT** TO COMPLETE INSTALLATION SCHEDULE: FY 2000 FY 1996 FY 1997 FY 1998 FY 1999 FY 2001 FY 2002 FY 2003 & Prior 3 3 2 3 2 3 2 3 3 3 **TOTAL** 0 6 0 6 In 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Out

P-1 SHOPPING LIST

P-3A CLASSIFICATION:

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РЗА		INDIVID	UAL	MODIFI	CATIO	N																		
MODELS OF SYSTEM AFFECTED:	AGM-84E						TYPI	E MOD	IFICA	TION:				_		MODII	FICAT	TION TIT	LE:	SLAM	EXPA	ANDED RES	SPONSE (E	R)
DESCRIPTION/JUSTIFICATION:																								
Converts SLAM to SLAM ER configuration,	increasin	g range,	accura	acy, leth	ality, a	and enh	ances	inter-s	ervice	e compat	ibility.													
DEVELOPMENT STATUS/MAJOR DEVELO	PMENT I	MILESTO	NES:				PRO	DUCTI	ON					<u> </u>										
	<u>FY 1994</u> QTY	& Prior	<u>FY</u> QTY	<u>′ 1995</u> \$	<u>FY</u> QTY	<u>′ 1996</u> \$	<u>FY</u> QTY	1997 \$	<u>FY</u> QTY	<u>′ 1998</u> \$	<u>FY</u> QTY	1999 \$	<u>F\</u> QTY	<u>/ 2000</u> \$	<u>FY</u> QTY	<u>2001</u> \$	<u>FY</u> QTY	<u>2002</u>	<u>FY</u> QTY	2003	QTY	<u>TC</u> \$	TO <sup>-</sup> QTY	ΓAL \$
FINANCIAL PLAN (IN MILLIONS)						<u> </u>				<u> </u>		<u> </u>		<u> </u>				<u> </u>						<u> </u>
RDT&E		14.8		62.2		50.8		30.3		28.0		5.2		1.6		3.0		3.1		4.7				203.7
<u>PROCUREMENT</u>																								
INSTALLATION KITS (1) (2) (3) (4)							60	33.6	42	24.2	54	27.2	56	28.7	38	23.1	38	23.4	38	24.1	299	159.2	625	343.5
								0.560		0.577		0.504		0.513		0.608		0.616		0.634		0.532		
INSTALLATION KITS NONRECURRING																								0.0
EQUIPMENT								0.3		0.4		1.3												2.0
EQUIPMENT NONRECURRING																								0.0
ENGINEERING CHANGE ORDERS								1.5		0.2		0.4		0.4		0.3		0.3		0.3		2.6		6.0
DATA								1.0		0.3		0.6												1.9
TRAINING EQUIPMENT (Exercise Sections	s)						10	1.0	0	0.0	7	1.0	5	0.7	0	0.0	0	0.0	0	0.0	27	4.3	49	7.0
SUPPORT EQUIPMENT (Containers)							60	8.0	42	0.4	54	0.6	56	0.7	38	0.5	38	0.5	38	0.5	299		625	8.0
OTHER (Field Activity Support)								1.9		4.3		4.0		4.1		4.1		4.2		4.3		13.5		40.4
INTERIM CONTRACTOR SUPPORT										0.2		0.2												0.4
INSTALL COST																								0.0
ATA RETROFIT (5)											110	4.2	25	1.0									135	5.2
TOTAL PROCUREMENT	0	0.0	0	0.0	0	0.0	60	40.1	42	30.0	54	39.5	56	35.6	38	28.0	38	28.4	38	29.2	299	183.6	625	414.4

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CLASSIFICATION:

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**UNCLASSIFIED** 

## Note(s):

- (1) Kit consists of GFE SLAM AUR, and CFE components.
- (2) Installations costs are included in the Installation Kits line since kit costs and installation are non-severable.
- (3) Estimates costs for installation kits/installation of Hardware is effected by concurrent FMS production (Harpoon). FMS assumptions include 95 units in FY 97, and 100 units in FY 98-TC.
- (4) SLAM ER Hardware and engineering unaffected by FMS Harpoon quantities (No commonality).
- (5) Retrofits required to convert inventory to a single configuration.

P3A (Continued)						וטועוטעו	JAL M	IODIFICA	IION	(Continue	ed)													
MODELS OF SYSTEMS AFF	ECTE	): <u>AG</u>	M-84E	<u> </u>				_ MO	DIFIC	ATION TI	TLE:	SLAM E	XPAN	DED RES	PON	SE (ER)					_			
INSTALLATION INFORMATION																								
METHOD OF IMPLEMENTAT	-						_	DDODLI	OTION			4.												
ADMINISTRATIVE LEADTIM			7 Mor		_					N LEADTIN	VIE:	12	2 Mon		4000	4.5	D 00							
CONTRACT DATES:		1997:	APF					FY 1998		APR 98					1999:		R 99		_					
DELIVERY DATE:	FY	1997:	APF	K 98				FY 1998	:	APR 99				FY	1999:	AP	R 00		_					
										(\$ in	Millior	ns)												
Cost:	Pric	or Years	F	Y 1995	F,	Y 1996	F	Y 1997	F	Y 1998	F١	Y 1999	F`	Y 2000	F	Y 2001	F`	Y 2002	F	Y 2003	To Co	mplete	To	otal
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS																							0	0
FY 1995 EQUIPMENT																							0	0
FY 1996 EQUIPMENT																							0	0
FY 1997 EQUIPMENT																							0	0
FY 1998 EQUIPMENT																							0	0
FY 1999 EQUIPMENT																							0	0
FY 2000 EQUIPMENT																							0	0
FY 2001 EQUIPMENT																							0	0
FY 2002 EQUIPMENT																							0	0
FY 2003 EQUIPMENT																							0	0
TO COMPLETE																							0	0
INSTALLATION SCHEDUL  FY 1996 & Prior In 1/ 0 Out 0  1/ Input schedule reflects of	0 0	FY 1997 2 3 60 0 0 0	0 0	1 2 0 42 0 0	15		54 5 15	0 0 11 11		10 14	0	1 2 0 38	2001 3 3 3 0 4 14		38		1 0 9	FY 2003 2 3 38 0 9 10	<u>4</u> 0		TOT 62 62	5		
										P-1	SHO	PPING LI	ST							CLASSIF	ICATIO	N:		

ITEM NO. 18 PAGE NO. 11

CLASSII IOATION. GITGE/1001	—.																							
P3A		INDIVID	UALI	MODIFI	CATIO	ON																		
MODELS OF SYSTEM AFFECTED:	RGM-84L						TYP	Е МОГ	DIFICA	TION:				-		MODII	FICAT	TION TIT	LE:	HARPO	OON I	BLOCK II		
DESCRIPTION/JUSTIFICATION:																								
HARPOON Block II modifies existing missile	es to impr	rove miss	sile acc	curacy i	n a litt	oral env	ironm	ent.																
	INDIVIDUAL MODIFICATION:																							
L DEVELOPMENT STATUS/MAJOR DEVELO	NODIFICATION:																							
	E) ( 100 1	٠. ٦.	-			( 4000		1007	í		E) (	1000	Ĺ		<b>5</b> ) (	0004	<b>-</b>		<b>5</b> ) (	0000		<b>T</b> 0	TO:	<b>T</b> 4.1
		Type Modification:   Modification title:   Harpoon Block																						
FINANCIAL PLAN (IN MILLIONS)					T								1					<u> </u>						1
1																								
RDT&E												2.0		2.0		1.0							0	5.0
<u>PROCUREMENT</u>																								
INSTALLATION KITS (1)	INDIVIDUAL MODIFICATION:																							
INSTALLATION KITS - UNIT COST																0.057		0.049		0.043		1		
INSTALLATION KITS NONRECURRING																								0.0
EQUIPMENT																						1		0.0
EQUIPMENT NONRECURRING																						1		0.0
ENGINEERING CHANGE ORDERS																						<u> </u>		0.0
DATA																0.1						<u> </u>		0.1
TRAINING EQUIPMENT (Exercise Sections	3)																	0.1				<u> </u>		0.1
SUPPORT EQUIPMENT (Containers)																						<u> </u>		0.0
OTHER (Field Activity Support)																0.2		0.2		0.2		<u> </u>		
OTHER																						l		0.0
OTHER																						<u> </u>		0.0
INTERIM CONTRACTOR SUPPORT																						l		0.0
INSTALL COST																						<u> </u>		0.0
TOTAL PROCUREMENT	0	0.0	0	0.0	0	0.0	0	0.0					0	0.0	44	2.8	110	5.7	146					15.0
									P-1 9	SHOPPII	VIC I IS	т									$CI\Delta S$	SSIFICATION	JVI.	

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**UNCLASSIFIED** 

(1) Installation costs are included in the installation kits line since kit costs and installations are non-severable.

P3A (Continued)						INDIVID	JAL M	IODIFICA	TION	(Continue	ed)													
MODELS OF SYSTEMS AFFE	CTE	): <u>RG</u>	M-84L	_				_ MC	DIFIC	ATION T	ITLE:	HARPO	ON BL	K II							_			
INSTALLATION INFORMATIO																								
METHOD OF IMPLEMENTAT							_																	
ADMINISTRATIVE LEADTIME		7 month			_					I LEADTII	ME: _	12 mon	ths											
CONTRACT DATES:		1997:	N/A					FY 1998		N/A					1999:	N/A			_					
DELIVERY DATE:	FY '	1997:	N/A					FY 1998	:	N/A				FY	1999:	N/A	4		_					
										(\$ ir	n Millio	ns)												
Cost:	Prid	or Years	F`	Y 1995	F	Y 1996	F	Y 1997	F`	Y 1998	F١	/ 1999	F`	Y 2000	F.	Y 2001	F	Y 2002	F	Y 2003	To C	Complete	To	otal
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS																							0	0
FY 1995 EQUIPMENT																							0	0
FY 1996 EQUIPMENT																							0	0
FY 1997 EQUIPMENT																							0	0
FY 1998 EQUIPMENT																							0	0
FY 1999 EQUIPMENT																							0	0
FY 2000 EQUIPMENT																							0	0
FY 2001 EQUIPMENT																							0	0
FY 2002 EQUIPMENT																							0	0
FY 2003 EQUIPMENT																							0	0
TO COMPLETE																							0	0
INSTALLATION S <u>CHEDUL</u>																								
FY 1996		FY 1997			′ 1998		FY	<u> 1999</u>		FY 2000		FY	2001			2002		FY 2003		<u>TC</u>				
& Prior	1	$\frac{2}{0} \frac{3}{0}$	4	1 2	_ 3	4 1	2	3 4	1	2 3 0 0	4	1 2	3 0	4 1		$\frac{3}{0} \frac{4}{0}$		2 3	4		TOT			
In 1/ 0	0			0 0		0 0								0 0			0			0	30			
Out 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0 0	0	11 11	11	11 28	28	200	30	0		
1/ Input schedule reflects d	elivery	of fleet b	aselin	e Harpoo	n miss	sile to the	contra	ctor's site	for m	odification	۱.													
									D 4 1	יאיםם	C L ICT	-								P-3 CLASSIF		NI.		
									P-1 3	SHOPPIN	G LIST										_			
								ITEM N	Ο.	18		PAGE	NO.	13						UNC	LAS	SSIF	IED	

## **UNCLASSIFIED**

			BUDGET	TITEM JUST	<b>TIFICATION</b>	SHEET				DATE:	FEBRUARY 1	998	
						P-4	10						
APPROPRIATION/BUI	DGET ACTIVI	TY						P-1 ITEM NO	MENCLATURE				
Weapons Procure	ment, Navy	/BA-2						STAN	IDARD MISS	SILES MODI	FICATION (	12FK) BLI:2	35600
Program Element for C	Code B Items:							Other Related	Program Elem	nents			
	Prior	ID										То	
	Years	Code	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	Complete	Total
QUANTITY													
COST (In Millions)			N/A	N/A	\$16.9	\$49.7	\$45.3	\$43.9	\$52.3	\$49.2	\$50.9		\$308.
	•			•							•	•	
							·	modification pro	•				
			FY97	FY98	FY99	FY00 FY	01 FY02	FY03	TO COMPLE	ΤΕ			
			FY97	FY98	FY99	FY00 FY	01 FY02	·		TE			
SM-1			FY97 7,427		FY99 0	FY00 FY		·		TE			
SM-1 Missile Homing (WP,I	N)			0	0	0 (	) 0	FY03	TO COMPLE				
	,		7,427	0	0	0 (	) 0	FY03	TO COMPLE				
Missile Homing (WP,I	,		7,427	0	0	0 (	) 0	FY03	TO COMPLE				
Missile Homing (WP,I	,		7,427	0	0	0 (	) 0	FY03	TO COMPLE				
Missile Homing (WP,I	,		7,427	0	0	0 (	) 0	FY03	TO COMPLE				

P-1 SHOPPING LIST ITEM NO. 19 PAGE NO. 1 CLASSIFICATION:

**UNCLASSIFIED** 

DD Form 2454, JUN 86

CLASSIFICATION: UNCLASSIFIED DATE: FEBRUARY 1998

MODELS OF SYSTEM AFFECTED:

TYPE MODIFICATION:

MODIFICATION TITLE:

Low Altitude Improvement

STANDARD Missile RIM-66E (SM-1 Block VI)

DESCRIPTION/JUSTIFICATION:

The STANDARD Missile Low Altitude Improvements which were approved by SECNAV in PMP 85-02 on 22 May 1986. in SM-1, the modifications are only to the missile with no interface change with the ship. Therfore, the common nomenclature is a letter change to the block number. Specifically, SM-1 Block VIB. Backfit of the initial changes into SM-1 Block VI is by replacement of the electronics assembly in the TDDs by an ORDALT to the guidance section.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

	FY 1996 & P	rior	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	ļ
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
FINANCIAL PLAN (IN MILLIONS)	324		30		0		0		0		0		0		0		0		354	
RDT&E															-					<u> </u>
PROCUREMENT																				
INSTALLATION KITS		45659		6897		0		0		0		0		0		0		0		52556
INSTALLATION KITS NONRECURRING		0		0		0		0		0		0		0		0		0		0
EQUIPMENT		0		0		0		0		0		0		0		0		0		0
EQUIPMENT NONRECURRING		0		0		0		0		0		0		0		0		0		0
ENGINEERING CHANGE ORDERS		90		30		0		0		0		0		0		0		0		120
DATA		540		0		0		0		0		0		0		0		0		540
TRAINING EQUIPMENT		1435		0		0		0		0		0		0		0		0		1435
SUPPORT EQUIPMENT		400		0		0		0		0		0		0		0		0		400
OTHER		8004		500		0		0		0		0		0		0		0		8504
OTHER																				
OTHER																				
INTERIM CONTRACTOR SUPPORT																				
INSTALL COST		0		0		0		0		0		0		0		0		0		0
TOTAL PROCUREMENT		56128		7427		0		0		0		0		0		0		0		63555

ITEM 19 PAGE 2 CLASSIFICATION: UNCLASSIFIED

## UNCLASSIFIED

P-3A

Low Altitude Improvement BL	K VIB						Date: FEBRUARY 1998	
(U) Contract Date:	Prior Year: 07/96	Current Year: 02/97		Budget Year: 00		Budget Year +1: 00		
(U) Production Delivery Date:	Prior Year: 11/97	Current Year: 12/98		Budget Year: 00		Budget Year +1: 00		
(U) Installation Schedule:								
FY1996	FY97	FY98	FY99	FY00	FY01	FY02	FY03	
& Prior			1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4		TOTAL
In	11 20 20 14	10 9 9 9	7 8 8 7					132
Out	9 18 20 18	10 9 9 9	8 8 8 6					132

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CLASSIFICATION: UNCLASSIFIED DATE: FEBRUARY 1998

MODELS OF SYSTEM AFFECTED:
STANDARD Missile IMR) RIM-66G/H

TYPE MODIFICATION:

MODIFICATION TITLE:

Missile Homing Improvement Program (MHIP)

DESCRIPTION/JUSTIFICATION:

The STANDARD Missile SM-2 is an Integral element of the AEGIS weapon system and provides area defense against air threats. The SM-2 Block IIIB MHIP provides Homing Improvements to SM-2 Blk II/III missiles for operations in a hostile ECM environment. The SM-2 Block IIIB Modification Kit includes the IR seeker, the MK45 Mod 9 Target Detecting Device (TDD), the Mk125 Warhead, the MK54 S&A Device and an updated Digital Signal Processor (DSP). Additionally, in FY(\* and outyears, the SM-2 Blk IIIB Modification shall include a regrained MK104 Rocket Motor and replacement components for the guidance section and autopilot battery unit to address safety, performance and aging issues in the population of SM-2 Block II/III missiles being upgraded to the SM-2 Block IIIB configuration.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

	FY 1996 & Pr	ior	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
<u>'</u>	QTY	<u>101</u> \$	OTY	\$	QTY	\$	OTY	\$	QTY	\$	OTY	\$	QTY	\$	QTY	\$	<u>TC</u> QTY	\$	QTY	s
PLAN (IN MILLIONS)	135	T V	32	Ψ	71	Ψ	93	Ψ	88	Ψ	109	Ψ	109	Ψ	114	Ψ	QII	Ψ	Q i i	<u> </u>
T EAN (IN WILLIONO)	100		32		,,		33		00		103		103		114					
RDT&E																				
PROCUREMENT																				
INSTALLATION KITS IIIB	135	49627	32	9437	80	29808	93	27812	88	26365	109	31376	109	29540	114	30538	340	105676	1100	288479
INSTALLATION KITS SLEP		0		0	80	19872	93	17491	88	17577	109	20918	109	19693	114	20359	340	57763	933	173673
INSTALLATION KITS NONRECURRING		0		0		0		0		0		0		0		0				0
EQUIPMENT		0		0		0		0		0		0		0		0				0
EQUIPMENT NONRECURRING		0		0		0		0		0		0		0		0				0
ENGINEERING CHANGE ORDERS		0		0		0		0		0		0		0		0				0
DATA		0		0		0		0		0		0		0		0				0
TRAINING EQUIPMENT		0		0		0		0		0		0		0		0				0
SUPPORT EQUIPMENT		0		0		0		0		0		0		0		0				0
OTHER		0		0		0		0		0		0		0		0				0
OTHER		0		0		0		0		0		0		0		0				0
OTHER		0		0		0		0		0		0		0		0				0
INTERIM CONTRACTOR SUPPORT		0		0		0		0		0		0		0		0				0
INSTALL COST		0		0		0		0		0		0		0		0				0
TOTAL PROCUREMENT		49627		9437		49680		45303		43942		52294		49233		50897	680	163439	2033	462152

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CLASSIFICATION: UNCLASSIFIED

### UNCLASSIFIED

### Missile Homing Improvement Program (MHIP) BLK IIIB

Date: FEBRUARY 1998

Method of Implementation: Guidance sections will be reworked at the depots and modified into SM-2 Block IIIB configuration at a rate which will provide a constant workload. The modified sections will then be sent to the contractor All-Up-Round (AUR) facility for integration into the round. SLEP Mods (Starting in FY98) will be incorporated concurrently.

Contract Date:	Prior Year	Current Year	Budget Year	Budget Year +1	Budget Year +2	Budget Year +3	Budget Year +4
SEEKER	4/97	1/98	1/99	1/00	1/01	1/02	1/03
Target Detecting Device (TDD)	6/97	6/98	6/99	6/00	6/01	6/02	6/03
SLEP/GC&A	4/97	1/98	1/99	1/00	1/01	1/02	1/03
MK125 Warhead	4/97	4/98	4/99	4/00	4/01	4/02	4/03
MK54 Safe and Arm	4/97	3/98	3/99	3/00	3/01	3/02	3/03
SLEP MK104	N/A	3/98	3/99	3/00	3/01	3/02	3/03
Production Delivery Date:	Prior Year	Current Year	Budget Year	Budget Year +1	Budget Year +2	Budget Year +3	Budget Year +4
SEEKER	4/99	1/00	12/00	12/01	12/02	12/03	12/04
Target Detecting Device (TDD)	6/99	10/99	9/00	9/01	9/02	9/03	9/04
SLEP/GC&A	4/99	1/00	12/00	12/01	12/02	12/03	12/04
MK125 Warhead	4/99	10/99	9/00	9/01	9/02	9/03	9/04
MK54 Safe and Arm	4/99	10/99	9/00	9/01	9/02	9/03	9/04
SLEP MK104	N/A	10/99	10/00	10/01	10/02	10/03	10/04
Installation Schedule:							
FY 1997	FY98	FY99	FY00 FY01	FY02	FY03		
& PRIOR	1 2 3 4	1 2 3 4	1 2 3 4 1 2 3	3 4 1 2 3 4	1 2 3 4	TOTAL	
IN	8 25 26	26 25 25 11	21 21 21 23 23 27 2	26 26 24 25 24 24	20	459	
OUT	25 26	25 26 25 21	12 21 22 23 21 26 2	7 26 23 26 27 26	23	459	

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## **UNCLASSIFIED**

		BUD	GET ITEM	JUSTIFICA	ATION SHE	ET			DATE:						
				P-40						Februa	ry 1998				
APPROPRIATION/E	BUDGET ACTI	VITY					P-1 ITEM NC	MENCLATUR	RE						
Weapons Procu	rement, Na	vy							Wea	apons Indu	strial Facili	ities			
Program Element fo	r Code B Items	s:					Other Related	d Program Ele	ments						
	Prior	ID									То				
	Years	Code	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	Complete	Total			
QUANTITY															
COST (In Millions)	\$456.7		\$41.8	\$33.4	\$29.8	\$27.1	\$7.9	\$9.0	\$8.6	\$9.3	cont	cont			

This line item provides for the Capital Type Rehabilitation projects at government-owned contractor operated plants for weapons systems such as Sparrow, Sea Sparrow, Hawk, Standard, Sidewinder, VLS and Mark 45 Gun Mounts, Phalanx, and rocket motors. Federal Acquisition Regulation Part 52.245-7 specifies that Facilities Use contracts require that the government fund capital type rehabilitation projects to support and maintain these facilities. These plants have an average age of 45 years and lack of proper maintenance will limit capabilities to maintain scheduled production rates and overall productivity. The following estimates are for capital type rehabilitation areas. Funding is separated to reflect environmental, safety, major repair, energy conservation and facilities restoration.

- ENVIRONMENTAL: Provides funds to eliminate environmental deficiencies in compliance with local, state, and federal regulations. These regulations mandate requirements which must be met if plant shutdowns, criminal liability, and severe financial penalties are to be avoided.
- SAFETY: Provides funds to eliminate safety deficiencies in compliance with local, state, and federal OSHA regulations. These regulations mandate requirements which must be met if plant shutdowns and severe financial penalties are to be avoided.
- MAJOR REPAIR: Provides funds for critical upgrades to maintain high liability areas such as fire and security systems, roofs, boilers, electrical distribution systems, bridge crane systems, and other structural repairs essential to maintain the industrial integrity of the plant.
- ENERGY CONSERVATION: Provides funds to decrease energy consumption by installing new energy efficient systems and provides increased maintenance on these systems. Mandated in 1993 by Congress.
- -FACILITIES RESTORATION: Provides funds for replacement of Weapons Industrial Facilities that have exceeded their useful life and deteriorated beyond safe operations.

P-1 SHOPPING LIST CLASSIFICATION:

DD Form 2454, JUN 86 ITEM NO. 20 PAGE NO. 1

	WEAPONS SY	STEM COST AN	NALYSIS			Weapon Sy	stem		DATE: February 19						
APPRO	PRIATION/BUDGET ACTIVITY					ID Code									
Neapo	ns Procurement, Navy														
3A 2 -	Other Missiles						Weapons	Industria	al Facilitie	s					
			TOTAL COS	T IN THOU	JSANDS OF	DOLLARS	-								
COST	ELEMENT OF COST	ID	Prior		FY 1996			FY 1997			FY 1998			FY 1999	
CODE		Code	Years												
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cos
	Capital Type Rehabilitation														
	Environmental														
	(SI	EA)	1,700			1,000						1,000			3,84
	(Al	IR)	4,622			2,678									
	Safety														
		EA)	2,652			450						475			1,25
	(Al	IR)	1,298			1,301									
	Major Repairs														
		EA)	383 9,836			814 2,556			705			391			73
	(Al	IK)	9,030			2,550									
	Energy Conservation														
	(SI	EA)	2,200			2,315						850			59
	Closure Costs														
	NWIRP, McGregor (All	R)				721			2,676			2,044			2,71
	Facilities Restoration (ABL)														
	(SI	EA)	28,500			30,000			30,000			25,000			18,00
	Prior Years		405,590												
	TOTAL Weapons Industrial Facil	ities													
	(SI	EA)	35,435			34,579			30,705			27,716			24,42
	(Al	IR)	15,756			7,256			2,676			2,044			2,71
	1		456,781			41,835			33,381			29,760			27,13
D FOR	M 2446, JUN 86	P-1 SH	OPPING LIS	Т	•	•		•			•	CLASSIFICA	ATION:	•	

DD FORM 2446, JUN 86 P-1 SHOPPING LIST ITEM NO. PAGE NO. 2

## UNCLASSIFIED CLASSIFICATION

BU	DGET ITEN	I JUSTIFIC	ATION SH	EET						DATE	Janua	ry 1994		
	PPROPRIATION/BUDGET ACTIVITY  EAPONS PROCUREMENT, NAVY/BA-2 OTHER MISSILES  FLEET SATELLITE COMMUNIC													
	PY	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TO COMP	TOTAL		
QUANTITY														
COST (in millions)	\$ 1,499.7		\$87.4	\$110.1										

The Fleet Satellite Communications (FLTSATCOM) System satisfies Department of Defense (DOD) worldwide Ultra High Frequency (UHF) mobile user communication requirements. This includes protected fleet broadcast to all Navy ships plus command control for Anti-Submarine Warfare platforms, fleet Ballistic Missile submarines, aircraft carriers, cruisers and other selected aircraft, ships and submarines. The system satisfies the Air Force equatorial satellite communications requirements including Presidential airborne command post, Strategic Air Command and emergency mission support. Existing fleet Satellite (FLTSAT) will continue to be used as long as their performance is operationally acceptable. UHF/FO satellites are being deployed to replace the aging FLTSAT/LEASAT constellation.

FY 1996 and FY1997 funded launch service payments for satellites #7 through #9 and provide technical support for satellite production. FY96 and FY97 also funded the Global Broadcast System (GBS) ECP to F8, F9 and F10.

The sixth satellite was launched in October 1995 and the seventh satellite was successfully launched in July 1996. F8, F9 and F10 are scheduled to launch in March 1998, September 1998, and February 1999 respectively.

P-1 SHOPPING LIST

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UNCLASSIFIED CLASSIFICATION

Exhibit P-40

## **UNCLASSIFIED**

## **CLASSIFICATION**

## **COST ANALYSIS**

DATE:

FEBRUARY 1998

B. APPROPRIATION/BUDGET ACTIVITY

C. P-1 ITEM NOMENCLATURE

SUBHEAD

WEAPONS PROCUREMENT, NAVY/BA-2 - OTHER MISSILES

FLEET SATELLITE COMMUNICATIONS (A)

Q2EU

			TOTAL COST IN THOUSANDS OF DOLLARS											
COST		IDENT		PY	F	Y 1995	F	Y 1996	F	Y 1997	F	Y 1998	F	Y 1999
CODE	ELEMENT OF COST	CODE	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
2000	UHF FOLLOW-ON SPACECRAFT AND LAUNCH Global Broadcast Services (GBS)			1,411,207				26,467 57,721		22,272 86,737				
	ENGINEERING SUPPORT			<u>43,465</u>				<u>3,195</u>		<u>1,064</u>				
	SUBTOTAL			1,454,672				87,383		110,073				
3000	LEASAT SPACECRAFT			45,000										
	TOTAL PROGRAM			1,499,672				87,383		110,073		0		0

**DD FORM 2446, JUN 86** 

P-1 SHOPPING LIST

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PAGE NO.

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Exhibit P-5 UNCLASSIFIED CLASSIFICATION MODIFICATION TITLE: MODELS OF SYSTEMS AFFECTED: DESCRIPTION/JUSTIFICATION: FLEET SATELLITE COMMUNICATIONS (Shore Installations)

The Fleet Satellite Communications (FLTSATCOM) System satisfies DOD worldwide Ultra High Frequency (UHF) mobile user communication requirements. This includes protected fleet broadcast to all Navy ships plus command control for Anti-Submarine Warfare platforms, Fleet Ballistic Missile submarines, aircraft carriers, cruisers and other selected aircraft, ships and submarines. The system satisfies Air Force equatorial satellite communications requirements Presidential airborne command post, Strategic Air Command and emergency mission support. UHF/FO satellites are being deployed to replace the aging FLTSAT/LEASAT constellation.

Install funding is for the installation of ground support equipment.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Fully developed off the shelf procurement.

FINANCIAL	PI AN:	(\$ in	millione)	

FINANCIAL PLAN: (\$ in millions)																									
			PY .		95		96	FY			′ <u>98</u>		<u>/ 99</u>		<u>′ 00</u>		<u>′ 01</u>		<u>′ 02</u>		03	<u>T(</u>		<u>Tot</u>	
RDT&E PROCUREMENT: Kit Quantity Installation Kits Installation Kits Nonrecurring Equipment		Qty 5	\$ 11.5	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty 5	\$ 11.5
Equipment Nonrecurring Engineering Change Orders Data Training Equipment Support Equipment Other Interm Contractor Support																									
Installation of Hardware* PRIOR YR EQUIP FY 95 EQUIP FY 96 EQUIP FY 97 EQUIP FY 98 EQUIP FY 99 EQUIP FY 00 EQUIP FY 01 EQUIP FY 02 EQUIP FY 03 EQUIP FY 05 EQUIP FY 06 EQUIP FY 07 EQUIP FY 07 EQUIP FY 08 EQUIP FY 08 EQUIP		5 5	3.9 3.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5 0 0 0 0 0 0 0	3.9 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
TOTAL INSTALLATION COST			3.9		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		3.9
TOTAL PROCUREMENT COST			15.4		0.0		0.0		0.0	TD 4 TI) (	0.0 E LEADT	11.45	0.0		0.0	PPOOL	0.0	LEADTIN	0.0		0.0		0.0		15.4
METHOD OF IMPLEMENTATION:  CONTRACT DATES:		FY 1996	6:							FY 1997		IIVIE:				PROCU	FY 1998		nE:			FY 1999:			
DELIVERY DATES:		FY 1996	6:							FY 1997	:						FY 1998	:				FY 1999:			
INSTALLATION SCHEDULE:	PY	1_	2 2	9 <u>5</u> 3	4	-	1	2 <u>FY</u>	9 <u>6</u> 3	4	=	1_	2 <u>FY</u>	<u>' 97</u> 3	4	-	1	2 <u>FY</u>	<u>/ 98</u> 3	4	-	1	2 <u>FY</u>	99 3	4
INPUT	5																								
OUTPUT	5																								
INSTALLATION SCHEDULE:		1	<u>FY</u> 2	3	4	-	1	<u>FY</u> 2	<u>01</u> 3	4	_	1	<u>FY</u> 2	<u>′ 02</u> 3	4	-	1	<u>FY</u> 2	<u>/ 03</u> 3	4	-	TC			TOTAL
INPUT																									5
OUTPUT																									5

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P-3A Exhibit UNCLASSIFIED

## **UNCLASSIFIED**

		BU	DGET ITEM	JUSTIFICA	TION SHEE	ΞT				DATE:					
				P-40						Se	eptember 19	997			
APPROPRIATION/BU WEAPONS PROC								P-1 ITEM NOMENCLATURE/LINE ITEM # Ordnance Support Equipment							
BA-2: Other Missi	les								84	lE3					
Program Element for	Code B Item	s:						OTHER RELA	ATED PROGR	M ELEMENTS					
	Prior	ID										То			
	Years	Code	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	Complete	Total		
QUANTITY													0		
EQUIPMENT COST															
(In Millions)	N/A			\$9.7	\$14.1	\$5.1	\$6.2	\$4.2	\$3.3	\$4.4	\$5.7		\$52.7		
SPARES COST															
(In Millions)													0		

### PROGRAM DESCRIPTION/JUSTIFICATION:

No justification materials are submitted in this backup book due to security considerations.

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CLASSIFICATION: